

PART 20—PILOT AND INSTRUCTOR CERTIFICATES

NOTE Following are Federal Register citations to regulations issued under former Part 20 referred to in § 20.2 of this part

19 F R 2385 Apr 23, 1954 19 F R 2763 May 13 1954 19 F R 5857 Sept 10 1954 19 F R 7719 Nov 30 1954 21 F R 889 Feb 9 1956 21 F R 4808 June 29, 1956 21 F R 7719 Oct 10 1956

Subpart A—General

APPLICABILITY AND DEFINITIONS

Sec	
20.1	Applicability of this part
20.2	Optional compliance
20.5	Definitions

GENERAL

20.10	Application and issuance
20.10-1	Flight tests in aircraft with special flight characteristics (FAA policies which apply to § 20.10 (b))
20.10-3	Application for a pilot certificate of a lesser grade (FAA policies which apply to § 20.10)
20.10-4	Application to change a name on a pilot certificate (FAA policies which apply to § 20.10)
20.10-5	Application to replace a lost or destroyed pilot or medical certificate (FAA policies which apply to § 20.10)
20.10-6	Applications for examinations and tests from holders of revoked or suspended pilot certificates or ratings (FAA policies which apply to § 20.10)
20.11	Duration of certificates
20.11-1	Voluntary surrender of certificate or rating (FAA policies which apply to § 20.11(b))
20.11-2	Validity of Flight Instructor Certificates (FAA interpretations which apply to § 20.11)
20.11-3	Issuance of temporary pilot certificates (FAA policies which apply to § 20.11(c))
20.12	Citizenship
20.13	Re-examination after failure
20.13-1	Instructor recommendations for reexamination within 30 days after failure (FAA policies which apply to § 20.13)
20.14	Prerequisites for examinations and tests
20.15	Aircraft used in flight tests
20.15-1	Certificated aircraft (FAA policies which apply to § 20.15)
20.15-2	Fully functioning dual controls (FAA policies which apply to § 20.15)
20.16	Pilot logbooks
20.16-1	Flight time which must be logged (FAA interpretation which applies to § 20.16)
20.17	Logging of flight time
20.18	Change of address
20.20	Age

Subpart B—Pilot Certificates, Airplane Rating STUDENT

Sec	
20.20-1	Consent of parent or guardian (FAA policies which apply to § 20.20)
20.20-2	Minors in the Armed Forces (FAA policies which apply to § 20.20)
20.20-3	Other minors (FAA interpretations which apply to § 20.20)
20.21	Education
20.21-1	English language limitations (FAA policies which apply to § 20.21)
20.22	Physical standards
20.22-1	Evidence of physical qualifications (FAA policies which apply to § 20.22)
20.23	Requirements for solo flight
20.24	Flight area limitations

PRIVATE

20.30	Age
20.31	Education
20.31-1	English language limitations (FAA policies which apply to § 20.31)
20.32	Physical standards
20.32-1	Evidence of physical qualifications (FAA policies which apply to § 20.32)
20.33	Aeronautical knowledge
20.33-1	Aeronautical knowledge (FAA policies which apply to § 20.33)
20.34	Aeronautical experience
20.34-1	Recommendation of Flight Instructor (FAA policies which apply to § 20.34(d))
20.85	Aeronautical skill
20.35-1	Private pilot practical examination—airplanes (FAA policies which apply § 20.35)

COMMERCIAL

20.40	Age
20.41	Education
20.41-1	English language limitations (FAA policies which apply to § 20.41)
20.42	Physical standards
20.42-1	Evidence of physical qualifications (FAA policies which apply to § 20.42)
20.43	Aeronautical skill
20.43-1	Aeronautical knowledge (FAA policies which apply to § 20.43)
20.44	Aeronautical experience
20.44-1	Recommendation of Flight Instructor (FAA policies which apply to § 20.44(c))
20.44-2	Instrument experience endorsement (FAA policies which apply to § 20.44(d))
20.44-3	Night experience endorsement (FAA policies which apply to § 20.44)
20.44-4	Dual commercial flight test preparation (FAA interpretations which apply to § 20.44(c))
20.45	Aeronautical skill
20.45-1	Commercial pilot flight test—airplanes (FAA policies which apply to § 20.45)

Subpart C—Pilot Certificates, Rotorcraft Rating**STUDENT**

- Sec
20 60 Age
20 50-1 Minor applicants (FAA policies which apply to § 20 50)
20 51 Education
20 51-1 English language limitations (FAA policies which apply to § 20.51)
20 52 Physical standards
20 52-1 Evidence of physical qualification (FAA policies which apply to § 20 52)
20 53 Requirements for solo flight
20 54 Flight area limitations

PRIVATE

- 20 60 Age
20 61 Education
20 61-1 English language limitations (FAA policies which apply to § 20 61)
20 62 Physical standards
20 62-1 Evidence of physical qualification (FAA policies which apply to § 20 62)
20 63 Aeronautical knowledge
20 63-1 Aeronautical knowledge (FAA policies which apply to § 20 63)
20 64 Aeronautical experience
20 64-1 Recommendation of Flight Instructor (FAA policies which apply to § 20 64)
20 65 Aeronautical skill
20 65-1 Private pilot flight test—rotorcraft (FAA policies which apply to § 20 65)

COMMERCIAL

- 20 70 Age
20 71 Education
20 71-1 English language limitations (FAA policies which apply to § 20 71)
20 72 Physical standards
20 72-1 Evidence of physical qualification (FAA policies which apply to § 20 72)
20 73 Aeronautical knowledge
20 73-1 Commercial pilot written examination (FAA policies which apply to § 20 73)
20 74 Aeronautical experience
20 74-1 Recommendation of Flight Instructor (FAA policies which apply to § 20 74)
20 74-2 Flight time endorsement (FAA policies which apply to § 20 74)
20 75 Aeronautical skill
20 75-1 Commercial pilot flight test—rotorcraft (FAA policies which apply to § 20 75)

Subpart D—Pilot Certificates, Glider Rating**STUDENT**

- 20 80 Age
20 80-1 Applicants under 16 years of age (FAA policies which apply to § 20 80)
20 80-2 Minor applicants (FAA policies which apply to § 20 80)
20 81 Education

Sec

- 20 81-1 English language limitations (FAA policies which apply to § 20 81)
20 82 Physical standards
20 82-1 Evidence of physical qualification (FAA policies which apply to § 20 82)
20 83 Requirements for solo flight
20 84 Flight area limitations

PRIVATE

- 20 90 Age
20 90-1 Applicants under 17 years of age (FAA policies which apply to § 20 90)
20 91 Education
20 91-1 English language limitation (FAA policies which apply to § 20 91)
20 92 Physical standards
20 92-1 Evidence of physical qualification (FAA policies which apply to § 20 92)
20 93 Aeronautical knowledge
20 93-1 Written examination (FAA policies which apply to § 20 93)
20 94 Aeronautical experience
20 94-1 Stall instruction for private glider pilot certificates (FAA policies which apply to § 20 94 (b))
20 95 Aeronautical skill
20 95-1 Private pilot flight test—gliders (FAA policies which apply to § 20 95)

COMMERCIAL

- 20 100 Age
20 101 Education
20 101-1 English language limitations (FAA policies which apply to § 20 101)
20 102 Physical standards
20 102-1 Evidence of physical qualification (FAA policies which apply to § 20 102)
20 103 Aeronautical knowledge
20 103-1 Commercial glider written examination (FAA policies which apply to § 20 103)
20 104 Aeronautical experience
20 105 Aeronautical skill
20 105-1 Commercial pilot flight test—gliders (FAA policies which apply to § 20 105)

Subpart E—Special Issuance of Pilot Certificates

- 20 110 Graduates of certificated airman agencies
20 111 Military competence
20 111-1 Acceptable evidence of military status and experience (FAA policies which apply to § 20 111)
20 111-2 Flight test for aircraft rating (FAA interpretations which apply to § 20 111(b))
20 111-3 Acceptable military instrument cards (FAA policies which apply to § 20 111(b))
20 112 Foreign pilot certificates
20 112-1 Recognition of foreign examinations and tests (FAA policies which apply to § 20 112 (a))

Sec

- 20 112-2 Special Purpose Pilot Certificates (FAA policies which apply to § 20 112(b))

Subpart F—Aircraft and Instrument Ratings

AIRCRAFT RATINGS

- 20 120 Airplane class ratings
 20 120-1 Helicopter category ratings (FAA interpretations which apply to § 20 120(a) (2))
 20 120-2 Class ratings on multi-jet airplanes with engines in fuselage (FAA policies which apply to § 20 120(b))
 20 121 Additional aircraft ratings
 20 121-1 Flight tests for additional ratings (FAA policies which apply to § 20 121)
 20 121-2 Five takeoffs and landings as pilot-in-command (FAA interpretations which apply to § 20 121(b) (2))

INSTRUMENT RATING

- 20 125 Issuance
 20 126 Aeronautical knowledge
 20 126-1 Instrument written examination (FAA policies which apply to § 20 126)
 20 127 Aeronautical experience
 20 127-1 Instrument flight instruction (FAA interpretations which apply to § 20 127(b))
 20 127-2 Recommendation of Flight Instructor (FAA policies which apply to § 20 127)
 20 128 Aeronautical skill
 20 128-1 Instrument rating flight test (FAA policies which apply to § 20 128)

Subpart G—Flight Instructor Certificates

- 20 130 Limited flight instructor certificates
 20 130-1 Limited Flight Instructor Certificates (FAA policies which apply to § 20 130)
 20 130-2 Recommendation of Flight Instructor (FAA policies which apply to § 20 130)
 20 131 Renewal and reissuance
 20 181-1 Satisfactory flight instruction record (FAA policies which apply to § 20 131)
 20 135 Flight instructor certificates
 20 135-1 Candidates trained by a Limited Flight Instructor (FAA policies which apply to § 20 135(b))
 20 135-2 Additional Flight Instructor category ratings (FAA policies which apply to § 20 135)
 20 136 Flight instruction records
 20 136-1 Flight instruction records (FAA policies which apply to § 20 136(b))
 20 137 Limited flight instructor limitations

Sec

- 20 137-1 Applicants trained by Limited Flight Instructors (FAA policies which apply to § 20 137)
 20 138 Validity and exchange of flight instructor ratings
 20 138-1 Exchange of Flight Instructor ratings for Flight Instructor certificates (FAA policies which apply to § 20 138)

AUTHORITY §§ 20 1 to 20 138-1 issued under sec 205 52 Stat 984 as amended 49 U S C 425 Interpret or apply secs 601 602 608-610 52 Stat 1007 as amended 1008 as amended 1011 as amended 1012 as amended 49 USC 551 552 558-560 Additional authority is cited in parentheses following sections affected

SOURCE §§ 20 1 to 20 138-1 appear at 21 FR 6502 Aug 29 1956 24 FR 5 Jan 1 1959 except as otherwise noted

NOTE Sections of this part bearing two or more numbers to the right of the decimal point separated by a dash are rules policies or interpretations issued by the former Civil Aeronautics Administration (now the Federal Aviation Agency) Sources are cited to text

SPECIAL CIVIL AIR REGULATIONS

SR-434

1 The provision of § 20 34(c) of Part 20 of the Civil Air Regulations with respect to a 100-mile solo cross-country flight shall not apply to the issuance of a private pilot certificate to an applicant who demonstrates on the island of Okinawa Ryukyu Islands that he is otherwise eligible for issuance of such a certificate and who has completed a solo cross-country flight between those airports on Okinawa which are the farthest apart A pilot certificate issued pursuant to this regulation shall contain the following limitation

The holder shall not pilot any aircraft carrying passengers except on flights over the island of Okinawa and within a radius of 40 miles from the airport of take-off

2 The holder of a private pilot certificate issued subject to the limitations provided in paragraph 1 of this regulation may obtain a private pilot certificate without such limitation upon presentation to an inspector of the Federal Aviation Agency of satisfactory evidence of compliance with the 100-mile solo flight experience requirement of § 20 34(c) and after satisfactorily accomplishing a practical examination with respect to the procedures and maneuvers prescribed by § 20 35(b)

3 No private pilot certificate shall be issued under paragraph 1 of this regulation after June 30 1961

(Sec 313(a) 72 Stat 752 49 USC 1354(a) Interpret or apply secs 601 602 72 Stat 775 776 49 USC 1421 1422) [24 FR 5634 July 14 1959]

SR-441

1 Contrary provisions of § 20 130 (b) and (c) of the Civil Air Regulations notwithstanding an applicant who is or has been within the preceding 12 months a civilian flight instructor employed at a US Air Force Contract Primary Flight School and has served in such capacity for a period of at least 6 months shall be deemed to have met the requirements of § 20 130 (b) and (c) for airplane ratings. *Provided* That the applicant presents satisfactory evidence of such employment and passes an FAA written examination on the Civil Air Regulations pertaining to the certification privileges, limitations and responsibilities of flight instructors.

2 This Special Civil Air Regulation shall terminate on August 15 1961 unless sooner superseded or rescinded.

(Sec 313(a) 601 602 72 Stat 752 775 776 49 USC 1354 1421 1422) [25 FR 7714 Aug 13 1960]

Subpart A—General

APPLICABILITY AND DEFINITIONS

§ 20 1 Applicability of this part

This part prescribes standards for the issuance of student private and commercial pilot and flight instructor certificates and aircraft and instrument ratings. Regulations for the issuance of airline transport and lighter-than-air pilot certificates are specified in Parts 21 and 22, respectively, of this subchapter.

§ 20 2 Optional compliance

In lieu of compliance with the provisions of this part the Administrator, prior to September 1 1957, shall issue certificates and ratings on request in accordance with the provisions of this part that were effective immediately prior to the effective date of this revision [21 FR 6502 Aug 29 1956 as amended by Amdt 20-2 22 FR 1114 Feb 27 1957].

§ 20 5 Definitions

As used in this part terms shall be defined as follows:

Actual instrument flight time Actual instrument flight time is flight time during which the pilot is operating an aircraft solely by reference to instruments under actual instrument weather conditions.

Aircraft An aircraft is any contrivance now known or hereafter invented, used, or designed for navigation of or flight in the air.

Airplane An airplane is a power-driven fixed-wing aircraft heavier than

air, which is supported by the dynamic reaction of the air against its wings.

Calendar month A calendar month is that period of time extending from the first day of any month as delineated by the calendar through the last day thereof.

NOTE A period of 12 calendar months would extend from any day within any month to the end of the last day of the same month of the following year.

Category (of aircraft) A category is a broad classification of aircraft with distinct configuration and operating characteristics such as airplane, rotorcraft, or glider.

Class (of aircraft) A class is a classification of aircraft within a category differentiating between single-engine and multiengine and land and water configurations.

Copilot A copilot is a pilot serving in any piloting capacity other than as pilot in command of aircraft requiring two pilots for normal operations, but excluding a pilot who is on board the aircraft for the sole purpose of receiving dual instruction.

Day VFR flight time Day VFR flight time is that flight time acquired under visual flight rules between the beginning of morning civil twilight and the ending of evening civil twilight as published in the "American Air Almanac" converted to local time for the locality concerned.

Dual instruction time Dual instruction time is that portion of flight time during which a person is receiving flight instruction from a certificated flight instructor on board the aircraft.

Flight instruction time Flight instruction time is that portion of a flight during which a person is receiving flight instruction from a certificated pilot authorized by the Civil Air Regulations to give flight instruction.

Flight instructor A flight instructor is a certificated pilot authorized by the Civil Air Regulations to give flight instruction.

Flight time Flight time is the total time from the moment the aircraft first moves under its own power for the purpose of flight until the moment it comes to rest at the end of the flight.

Glider A glider is a heavier-than-air aircraft the free flight of which does not depend principally upon a power-generating unit.

Instrument time Instrument time is that time during which a pilot is oper-

ating an aircraft under actual or simulated instrument flight conditions solely by reference to instruments, or time acquired in a synthetic trainer approved for instrument flight training

Night VFR flight time Night VFR flight time is that flight time acquired under visual flight rules between the ending of evening civil twilight and the beginning of morning civil twilight as published in the "American Air Almanac" converted to local time for the locality concerned

Pilot in command A pilot in command is the pilot responsible for the operation and safety of the aircraft during the time defined as flight time

Rotorcraft A rotorcraft is a power-driven aircraft heavier than air, which is supported during flight by one or more rotors

Simulated instrument flight time Simulated instrument flight time is flight time during which the pilot is operating an aircraft solely by reference to instruments under simulated instrument flight conditions

Solo flight time Solo flight time is flight time during which the pilot is the sole occupant of the aircraft

Synthetic trainer A synthetic trainer is a device the use of which is approved by the Administrator to simulate certain operating conditions

Type of aircraft Type is a specific classification of aircraft having the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-3 22 F.R. 2657 Apr 17 1957]

GENERAL

§ 20 10 Application and issuance

(a) An application for a pilot certificate or any rating shall be made on a form furnished by the Administrator

(b) A student private or commercial pilot or flight instructor certificate with appropriate aircraft ratings shall be issued by the Administrator to an applicant who meets the applicable requirements. Additional aircraft category, class and type, and instrument ratings for which an applicant has been found qualified shall be issued in connection with a pilot or flight instructor certificate. A pilot certificate with appropriate limitations shall be issued to an applicant who cannot comply with all the prescribed skill requirements due to the

special characteristics of the aircraft used in the flight test if he meets all other requirements for the issuance of the certificate sought

(c) An applicant for a pilot certificate who presents a medical certificate issued under the physical-deficiencies provision of Part 29 of this subchapter and meets all other requirements for the issuance of the certificate sought shall be issued a pilot certificate containing such operating limitations as the Administrator may find are commensurate with the physical deficiencies

(d) The prescribed examinations and tests shall be given by a person designated by the Administrator

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-10 24 F.R. 7307 Sept 11 1959 24 F.R. 7496 Sept 17 1959]

§ 20 10-1 Flight tests in aircraft with special flight characteristics (FAA policies which apply to § 20 10(b))

Flight test maneuver requirements for pilot certificates will be modified only when the operating limitations of the aircraft used prohibit the performance of required maneuvers or procedures

[Supp 8 22 F.R. 5535 July 13 1957]

§ 20 10-3 Application for a pilot certificate of a lesser grade (FAA policies which apply to § 20 10)

(a) **Permanent exchange** The holder of a valid pilot certificate may make application for a pilot certificate of a lower grade. The application should be made on Form ACA-355, and include the following statement or its equivalent

This request is made for my own reasons with full knowledge that my airline transport pilot certificate (or commercial pilot, or private pilot certificate) may not be re-issued to me unless I again pass the examinations and tests prescribed for its issuance [Supp 8 22 F.R. 5535 July 13 1957 as amended by Supp 9, 23 F.R. 2244 Apr 5, 1958]

§ 20 10-4 Application to change a name on a pilot certificate (FAA policies which apply to § 20 10)

Application to change a name on a pilot certificate should be made on Form ACA-342, and submitted to an inspector. The application should be accompanied by the applicant's current pilot certificate and the marriage license court order, or other document verifying the name change. These documents will be re-

turned to the applicant after examination by the inspector

[Supp 8 22 F R 5535 July 13 1957]

§ 20 10-5 Application to replace a lost or destroyed pilot or medical certificate (FAA policies which apply to § 20 10)

(a) *Pilot certificate* Application to replace a lost or destroyed pilot certificate should be made in a letter addressed to the Chief, Airman Records Branch, W-253 Federal Aviation Agency Washington 25, DC The letter should contain the following (1) A brief statement of the circumstances surrounding the loss or destruction of the certificate, (2) all available information regarding the certificate, such as grade, number exact name in which it was issued, ratings and date of issuance, and (3) be accompanied by a check or money order for \$2 00, payable to the Federal Aviation Agency, Department of Commerce

(b) *Medical certificate* Application to replace a lost or destroyed medical certificate should be made in the form of a letter addressed to the Chief, Medical Division W-265, Federal Aviation Agency, Washington 25, DC, and accompanied by a check or money order for \$2 00, payable to the Federal Aviation Agency Department of Commerce

(c) *Telegraphic evidence of lost pilot or medical certificate* (1) The person to whom a pilot or medical certificate was issued may upon loss of that certificate obtain from the FAA an official telegram confirming its issuance This telegram may be carried in pilot's personal possession as a pilot certificate, medical certificate, or both pending the receipt of duplicate certificates issued in accordance with paragraphs (a) and (b) of this section *Provided*, That he has not been notified of the suspension or revocation of the certificate concerned

(2) The request for such a telegram may be made by prepaid telegram stating the date on which a duplicate certificate or certificates were requested, or including the request for such duplicate(s) and a money order for the necessary fee or fees

(3) A request for a telegram for temporary use in lieu of a lost pilot or medical certificate should be addressed to the appropriate division shown in paragraph (a) or (b) of this section A request for

a telegram for temporary use in lieu of both pilot and medical certificates should be addressed to the Chief Airman Records Branch, W-253 Federal Aviation Agency, Washington 25 DC

[Supp 8 22 F R 5535, July 13 1957]

§ 20 10-6 Applications for examinations and tests from holders of revoked or suspended pilot certificates or ratings (FAA policies which apply to § 20 10)

(a) No written examination or flight test will be given to an applicant whose pilot certificate or any rating endorsed thereon, has been revoked by the Board unless he obtains an authorization therefor from the Administrator

(b) No written examination or flight test will be given to an applicant for a certificate or rating which has been suspended by order of the Board until the expiration of the period prescribed by such order

[Supp 9 23 F R 2244 Apr 5 1958]

§ 20 11 Duration of certificates

Student pilot and limited flight instructor certificates shall expire 24 calendar months after the date of issuance

(b) Private and commercial pilot and flight instructor certificates shall remain in effect until surrendered, suspended, or revoked, or until a general termination date is set by the Administrator

(c) A temporary pilot certificate effective for a period not to exceed 90 days may be granted to an applicant pending issuance of the certificate or rating sought

§ 20 11-1 Voluntary surrender of certificate or rating (FAA policies which apply to § 20 11(h))

The holder of a pilot certificate may surrender it at any time, to an inspector³ for cancellation Final acceptance of surrender for cancellation is within the discretion of the Administrator When a certificate has been accepted for surrender the pilot must requalify and pass all applicable examinations and tests if he wishes to obtain another pilot certificate

[Supp 8 22 F R 5535 July 13 1957]

³ The word 'inspector' used in this manual denotes a Flight Operations and Airworthiness Inspector employed by the Federal Aviation Agency

§ 20 11-2 Validity of Flight Instructor Certificates (FAA interpretations which apply to § 20 11)

A limited Flight Instructor or a Flight Instructor Certificate becomes invalid at any time the holder does not possess a current and effective pilot certificate as prescribed by § 20 130(a)

[Supp 8 22 F R 5535 July 13 1957]

§ 20 11-3 Issuance of temporary pilot certificates (FAA policies which apply to § 20 11(c))

Temporary pilot certificates are issued to qualified applicants by inspectors and designated pilot examiners pending the examination of the applicants' records and the issuance of certificates of longer duration by the Administrator

[Supp 8 22 F R 5535 July 13 1957]

§ 20 12 Citizenship

An applicant for a pilot or flight instructor certificate may be a citizen of any country or a person without nationality

§ 20 13 Re-examination after failure

An applicant who fails to pass any theoretical or practical examination may reapply after the expiration of 30 days or upon presenting a statement from a rated flight or ground instructor, as applicable, certifying that he has given the student additional instruction and now deems him competent to pass the examination

§ 20 13-1 Instructor recommendations for reexamination within 30 days after failure (FAA policies which apply to § 20 13)

(a) *Written examinations* Recommendations presented for reapplication within a 30-day period after the failure of a written examination will be accepted from an appropriately rated instructor as follows

(1) *Private—Limited Flight Instructor or Flight Instructor Certificate* with appropriate category rating or Ground Instructor Certificate with ratings for subjects covered in the examination failed

(2) *Commercial—Flight Instructor (unlimited)* with appropriate category rating or Ground Instructor Certificate with ratings for subjects covered in the examination failed

(3) *Instrument—Flight Instructor Certificate* with instrument rating or Ground Instructor Certificate with rat-

ings for subjects covered in the examination failed

(4) *Flight Instructor—Flight instructor Certificate (unlimited)* with appropriate category or instrument rating

(b) *Flight tests* Recommendations presented for reapplication within a 30-day period after failure of a flight test will be accepted only from an appropriately rated Limited Flight Instructor or Flight Instructor

[Supp 8 22 F R 5535 July 13 1957]

§ 20 14 Prerequisites for examinations and tests

(a) To be eligible to take a flight test for a pilot or flight instructor certificate or aircraft or instrument rating the applicant shall meet the following requirements

(1) He must have passed the prescribed written examination within the preceding 24 calendar months,

(2) He must have acquired the prescribed aeronautical experience and

(3) He must hold a valid medical certificate appropriate to the certificate or rating sought

(b) There are no prerequisites for taking the written or physical examinations

§ 20 15 Aircraft used in flight tests

The applicant shall furnish a certificated aircraft equipped with fully functioning dual controls for all flight tests except those for which the Administrator determines that fully functioning dual controls are not necessary

§ 20 15-1 Certificated aircraft (FAA policies which apply to § 20 15)

(a) For the purpose of taking pilot flight tests a "certificated aircraft" means a United States registered aircraft with a valid airworthiness certificate which contains no limitations excluding pilot flight tests

(b) A foreign registered aircraft having a valid airworthiness certificate issued by the proper authorities of the country in which the aircraft is registered may be used for pilot flight tests at the discretion of the inspector or examiner

(c) Military aircraft on operational status may also be used at the discretion of the inspector or examiner, provided permission from the appropriate military authority is obtained

[Supp 8 22 F R 5536 July 13 1957]

§ 20 15-2 Fully functioning dual controls (FAA policies which apply to § 20 15)

An applicant who wishes to use an aircraft without complete fully functioning dual controls should make prior arrangement with the examiner or inspector concerned before presenting himself for a flight test. The applicant may be permitted to use such an aircraft if the examiner or inspector determines, upon consideration of all factors that the flight test can be conducted safely. Instrument rating flight tests will be conducted only in aircraft with fully functioning dual controls, in accordance with the requirements for simulated instrument flight prescribed in Part 43 of this chapter.

[Supp 8 22 FR 5536 July 13 1957 as amended by Supp 9 23 FR 2244 Apr 5 1958]

§ 20 16 Pilot logbooks

All flight time used to meet the experience requirements for any pilot certificate, rating or operating privilege shall be substantiated by a reliable record but the logging of other flight time is not required. Such record shall include the following information:

- (a) *General* (1) Date
- (2) Duration,
- (3) Points of departure and arrival,
- (4) Type of aircraft, and
- (5) Identification mark of the aircraft

(b) *Type of piloting time* (1) Pilot in command or solo

- (2) Copilot,
- (3) Dual instruction, including the procedures and maneuvers or

(4) Synthetic trainer

(c) *Conditions of flight* (1) Day VFR,

(2) Night VFR,

(3) Actual instrument flight, or

(4) Simulated instrument flight

[21 FR 6502 Aug 29 1956 as amended by Amdt 20-3 22 FR 2657 Apr 17 1957]

§ 20 16-1 Flight time which must be logged (FAA interpretation which applies to § 20 16)

The wording "or operating privilege" refers to the recent flight experience requirements of § 43 68 of this subchapter [Supp 8 22 FR 5536 July 13 1957]

§ 20 17 Logging of flight time

(a) *Student* A student pilot may log as solo only that flight time during which he is the sole occupant of the aircraft.

(b) *Private and commercial*—(1) *Pilot in command and solo* A private or commercial pilot may log as pilot in command only that flight time during which he is the sole manipulator of the controls of an aircraft for which he is rated or that flight time during which he is the sole occupant of the aircraft. He may log as solo only that pilot-in-command time during which he is the sole occupant of the aircraft. A flight instructor may log as pilot in command that flight time during which he is serving as flight instructor. All flight time so logged may be credited toward the total flight time required for a higher pilot certificate.

(2) *Copilot* A private or commercial pilot may log as copilot that flight time during which he is performing the duties of a copilot. Such pilot shall be entitled to credit not more than 50 percent of such flight time toward the total flight time required for a higher grade of pilot certificate, but in no event shall a private pilot be entitled to credit more than 50 hours of such flight time.

(3) *Dual instruction* A private or commercial pilot may log as dual instruction that flight time during which he is receiving flight instruction from a certificated flight instructor on board the aircraft.

(c) *Instrument time* Instrument flight time may be logged as such by the pilot actually manipulating the controls only when the aircraft is flown solely by reference to instruments either under actual or simulated instrument flight conditions.

[Amdt 20-3 22 FR 2657 Apr 17 1957]

§ 20 17 Change of address

Within 30 days after any change in the permanent mailing address of the holder of a pilot certificate, he shall notify the Administrator in writing of his new address. This notice shall be mailed to the Administrator of the Federal Aviation Agency attention Airman Records Branch Washington 25, DC.

[21 FR 6502 Aug 29 1956 Redesignated by Amdt 20-3 22 FR 2657 Apr 17 1957]

Subpart B—Pilot Certificates, Airplane Rating

STUDENT

§ 20 20 Age

16 years is the minimum age for the issuance of a student pilot certificate. If an applicant is less than 21 years of age and is not a regular or reserve member of the armed forces of the United States or enrolled in an established ROTC or other training program of such armed forces at the time of making application he shall submit with his application the written consent of either parent or of his legal or natural guardian.

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-1 21 F R 10369 Dec 28 1956]

§ 20 20-1 Consent of parent or guardian (FAA policies which apply to § 20 20)

The written consent required for minor applicants should be endorsed in the appropriate space on the application form or submitted on a separate sheet.

[Supp 8 22 F R 5536 July 13 1957]

§ 20 20-2 Minors in the Armed Forces (FAA policies which apply to § 20 20)

An applicant under 21 who is a regular or reserve member of the Armed Forces or enrolled in an established ROTC or other Armed Forces training program should indicate such membership on his application and include his military serial number, or attach to the application a written statement from his appropriate commanding officer certifying that the applicant is a member of such Armed Forces.

[Supp 8 22 F R 5536 July 13 1957]

§ 20 20-3 Other minors (FAA interpretations which apply to § 20 20)

No consent is required for a married male applicant under 21 but a married female applicant under 21 must furnish the consent of her husband who may be under 21.

[Supp 8 22 F R 5536 July 13 1957]

§ 20 21 Education

An applicant shall be able to read, speak, and understand the English language or an appropriate operation limitation shall be placed on his student pilot certificate.

§ 20 21-1 English language limitations (FAA policies which apply to § 20 21)

An applicant not able to meet the requirements of this section will be issued a student pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language.

[Supp 8 22 F R 5536 July 13 1957]

§ 20 22 Physical standards

An applicant shall hold at least a valid third class medical certificate issued in accordance with the physical standards prescribed in Part 29 of this subchapter.

§ 20 22-1 Evidence of physical qualifications (FAA policies which apply to § 20 22)

A first-, second-, or third-class FAA medical certificate issued within the preceding 24 calendar months will be accepted for the issuance of a student pilot certificate.

[Supp 8 22 F R 5536 July 13 1957]

§ 20 23 Requirements for solo flight

A student pilot shall not operate an airplane in solo flight until

(a) He is familiar with the general and visual flight rules of Part 60 of this subchapter.

(b) He has received dual instruction in such preparatory and flight procedures as preflight inspection, starting, warming up, operating, and stopping the engine, taxiing, take-offs, landings and parking, traffic pattern procedures, level flight turns, climbs, and glides, and stalls and emergency landings, and

(c) His student certificate has been endorsed by an appropriately rated flight instructor who has examined him and found him to have complied with the provisions of paragraphs (a) and (b) of this section and otherwise to be competent to make solo flights.

§ 20 24 Flight area limitations

A student pilot shall not operate an airplane in solo flight outside of a local area designated by his flight instructor until

(a) He is familiar with such flight planning elements as plotting courses, estimating time en route and fuel re-

quired, and obtaining and evaluating weather reports,

(b) He has received dual instruction in

(1) Crosswind and simulated soft-field takeoffs and landings,

(2) Climbing and gliding turns at minimum safe speeds,

(3) Cross-country navigation by reference to aeronautical charts

(4) Safe operating procedures in simulated emergencies such as engine failure, loss of flying speed marginal visibility deteriorating weather, getting lost, and similar critical situations,

(5) Conforming with air traffic control instructions by radio and lights, and

(6) The proper use of two-way radio communications, VFR navigation procedures and techniques *Provided* That in areas where ground electronic communication equipment and navigational aids are not available within 100 miles of the base of operation a synthetic trainer may be used for training in air traffic procedures, phraseology, and radio navigation, and

(c) His student pilot certificate has been endorsed by an appropriately rated flight instructor who has found him to have complied with paragraphs (a) and (b) of this section and otherwise to be competent to make solo cross-country flights

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-12 24 F R 9363 Nov 20 1959]

PRIVATE

§ 20 30 Age

17 years is the minimum age for the issuance of a private pilot certificate

[Amdt 20-1 21 F R 10369 Dec 28 1956]

§ 20 31 Education

An applicant shall be able to read, speak and understand the English language, or an appropriate operation limitation shall be placed on his pilot certificate

§ 20 31-1 English language limitations (FAA policies which apply to § 20 31)

An applicant not able to meet the requirements of this section will be issued a private pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be

removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language
[Supp 8 22 F R 5536 July 13 1957]

§ 20 32 Physical standards

An applicant shall hold at least a valid third class medical certificate issued in accordance with the physical standards prescribed in Part 29 of this subchapter

§ 20 32-1 Evidence of physical qualifications (FAA policies which apply to § 20 32)

A first-, second-, or third-class FAA medical certificate issued with the preceding 24 calendar months will be accepted for the issuance of a private pilot certificate

[Supp 8 22 F R 5536 July 13 1957]

§ 20 33 Aeronautical knowledge

An applicant shall pass an examination on the following

(a) The Civil Air Regulations governing private pilot privileges and limitations and general operating air traffic and accident reporting rules,

(b) The practical aspects of cross-country flying including flight planning, map reading, pilotage radio communication procedures radio navigation, and emergency procedures

(c) The recognition of dangerous weather conditions and the evaluation of weather reports, and

(d) General safety practices in the operation of airplanes

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-12 24 F R 9364 Nov 20 1959]

§ 20 33-1 Aeronautical knowledge (FAA policies which apply to § 20 33)

The private pilot written examination will be given by inspectors only *

[Supp 8 22 F R 5536 July 13 1957]

§ 20 34 Aeronautical experience

An applicant shall present his student pilot certificate appropriately endorsed for solo and cross-country flights and meet each of the following minimum flight experience requirements

(a) 40 hours dual instruction and solo flight time,

*The Private Pilot Examination Guide which gives information on the preparation for the private pilot written examination will be available from local flying school operators or the Government Printing Office Washington 25 D C after July 1 1957

(b) 20 hours of solo flight time at least 15 of which shall have been in airplanes,

(c) 10 hours of solo cross-country flight time Each solo cross-country flight shall include a landing at a point more than 25 miles from the point of departure and at least one flight shall include a landing at a point more than 100 miles from the point of departure, and

(d) Dual instruction in the control of an airplane solely by reference to instruments given by the holder of a flight instructor certificate with an airplane rating The airplane shall be equipped with at least a sensitive altimeter turn and bank indicator, and a means for simulating instrument flight conditions This instruction by reference to instruments shall be integrated with the dual flight instruction in primary flight maneuvers given before and after solo, and

(e) 3 hours of dual instruction after the first solo cross-country flight which shall include a review of the procedures and maneuvers previously learned and additional instruction in preparation for the private pilot flight test

[21 FR 6502 Aug 29 1956 as amended by Amdt 20-3 22 FR 2658 Apr 17 1957 Amdt 20-12 24 FR 9364 Nov 20 1959]

§ 20 34-1 Recommendation of Flight Instructor (FAA policies which apply to § 20 34(d))

The written recommendation of an appropriately rated Limited Flight Instructor or a Flight Instructor will be accepted for an application for a private pilot flight test It is desirable that the 3 hours' dual flight test preparation be given by the instructor who makes the flight test recommendation

[Supp 8 22 F R 5536 July 13 1957]

§ 20 35 Aeronautical skill

An applicant shall satisfactorily accomplish a practical examination with respect to the following procedures and maneuvers

(a) Preflight inspection, starting, taxiing, and run-up check of the airplane before take-off,

(b) Planning of a VFR cross-country flight to a specified destination reckoning with weather conditions fuel requirements check points, estimated time of arrival available alternate airports, radio communication and navigation procedures, air traffic control procedures and accomplishing such portion of the

planned flight, including change of course to an alternate airport, and execution of emergency procedures, as are necessary to demonstrate proficiency in cross-country flying,

(c) Straight and level flight, left and right medium banked turns left and right climbing and gliding turns at normal and at minimum controllable speeds, and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes

(d) Turns while maintaining a constant radius, or track, around a point or area, including a 720° turn in each direction in a banked attitude of more than 45°

(e) Normal and cross-wind take-offs and landings following appropriate traffic control procedures of the airport involved using power, flaps and slips at the applicant's discretion for assistance in landing and

(f) Simulated emergencies, including one short or soft-field take-off and one landing if in single-engine aircraft with engine throttled and using flaps slips or both for assistance or, if in multiengine aircraft in accordance with proper engine-out procedure

(g) Demonstrate in simulated instrument flight to an FAA Inspector or a designated flight examiner with an instrument rating ability to safely control an aircraft manually by sole reference to the aircraft flight instruments This demonstration shall include manual control in the following

(1) Recovery from the start of a power-on spiral,

(2) Recovery from the approach to a climbing stall,

(3) Normal turns of 180° duration left and right to within $\pm 20^\circ$ of proper 180° heading

(4) Shallow climbing turns to a predetermined altitude,

(5) Shallow descending turns at reduced power to a predetermined altitude, and

(6) Straight and level flight

NOTE The basic criteria for a satisfactory demonstration shall be safe and positive manual control not precision in speed altitude and direction control Nevertheless unsafe or unsure control of airspeed erratic loss or gain of altitude or consistent failure to maintain the general direction of flight shall be disqualifying The intent of this added aeronautical experience and skill is

basically as follows This student or applicant has just flown suddenly into worsening weather conditions which make further control of the aircraft by visual reference to the ground unsafe or unlikely He allows the aircraft to assume an attitude that if continued would result in a probable uncontrollable maneuver Can he recover from this position safely and then turn back in the proper direction where known pilotage weather conditions exist while at the same time adjusting and maintaining altitude control that will clear safely terrain and other obstructions If he can do this consistently with positive and safe control he is a much safer private pilot It is important however that all through the course of instruction the student has stressed to him the danger of operating into weather flight conditions described above and that this minimum ability can be fatal if proper respect is not maintained by him

NOTE Detailed information on present flight test procedures and standards are contained in Flight Operation and Airworthiness Release No 420 Revision of the information in this release will be issued as FAA Bureau of Flight Standards Flight Test Guides and will contain appropriate supplemental information concerning the maneuvers required by these amendments These flight test guides may be purchased from the Superintendent of Documents Government Printing Office Washington 25 DC

[21 FR 6502 Aug 29 1956 as amended by Amdt 20-12, 24 FR 9364 Nov 20 1959]

§ 20 35-1 Private pilot practical examination—airplanes (FAA policies which apply to § 20 35)

(a) *Practical examination phases and items* (1) The practical test will be given in three phases The failure of any required item in any phase constitutes the failure of that phase and of the whole examination The whole phase failed must be satisfactorily completed at the time of reapplication.

(2) A practical examination may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the examination impossible In such cases, credit will be allowed for only whole phases successfully completed

(3) The applicant will be required to demonstrate the competent performance of the following procedures and maneuvers

PHASE I—ORAL OPERATIONAL EXAMINATION

(1) Airplane registration, airworthiness and equipment documents

(11) Airplane logbooks and airworthiness inspection reports

(111) Airplane performance range and operation (from Airplane Flight Manual)

(1v) Airplane loading including fuel, oil, and baggage capacities

(v) Airplane line check

(vi) Use of radio for voice communication (may be simulated when necessary)

PHASE II—BASIC PILOTING TECHNIQUE

(1) Preflight operations

(11) Taxiing or sailing and docking

(111) Normal and crosswind takeoffs and landings

(1v) Climbs level flight and descents at normal speeds and at minimum controllable speeds

(v) Stalls from all normally anticipated flight attitudes with and without power

(vi) 720° steep turns about a point

(vii) Wheel landings in tailwheel type airplanes and full stall landings in tricycle type airplanes

(viii) Short field takeoff and power approach and landing

(ix) Soft field takeoff and landing

(x) Slips and a slip to a landing (if 3-control airplane used)

(xi) Emergency operation of airplane equipment

(xii) Engine-out emergencies, if multi-engine airplane used

(a) Maneuvering with one engine out (feathered if possible)

(b) Engine-out minimum control speed demonstration

(c) Use of engine-out best rate-of-climb speed

(d) Effect on engine-out performance of failure to feather extension of gear and flaps and combination of these

(e) Approach and landing with an engine set for zero thrust

PHASE III—CROSS-COUNTRY

(1) Cross-country flight planning

(11) Cross-country flying

(111) Use of radio aids to VFR navigation *

(1v) Cross-country emergencies (lost, weather overheating engine, power failure, etc)

(b) *Evaluation of performance* The applicant's performance will be evaluated by the examiner on the basis of the judgment knowledge smoothness, and accuracy displayed A competent performance of a flight maneuver is one in which the pilot is obviously the master

*For flight tests in areas where radio ranges are not available the applicant will demonstrate by any means satisfactory to the examiner that he is familiar with the procedure for the use of radio ranges for VFR navigation

of his airplane and the successful outcome of the maneuver is never seriously in doubt

[Supp 8 22 F.R. 5536 July 13 1957]

COMMERCIAL

§ 20 40 Age

18 years is the minimum age for the issuance of a commercial pilot certificate

[Amdt 20-1 21 F.R. 10369 Dec 28 1956]

§ 20 41 Education

An applicant shall be able to read, speak and understand the English language or an appropriate operation limitation shall be placed on his pilot certificate

§ 20 41-1 English language limitations (FAA policies which apply to § 20 41)

An applicant not able to meet the requirements of this section will be issued a commercial pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language

[Supp 8 22 F.R. 5536 July 13 1957]

§ 20 42 Physical standards

An applicant shall hold at least a valid second class medical certificate issued in accordance with the physical standards prescribed in Part 29 of this subchapter

§ 20 42-1 Evidence of physical qualifications (FAA policies which apply to § 20 42)

A first- or second-class FAA medical certificate issued within the preceding 12 calendar months will be accepted for the issuance of a commercial pilot certificate

[Supp 8 22 F.R. 5536 July 13 1957]

§ 20 43 Aeronautical knowledge

An applicant shall pass a written examination based on the following

(a) Meteorology, including recognition of basic weather conditions and trends and the acquisition and use of weather information disseminated by the US Weather Bureau such as hourly sequence reports, terminal forecasts, winds aloft reports and reading and interpreting weather maps,

(b) Navigation including pilotage, dead reckoning, the use of instruments and radio aids to navigation, proper radio frequency utilization, radiotelephone procedures and techniques, flight planning, emergency procedures, pre-flight and inflight services for pilots and notices to airmen,

(c) Principles of safe flight operations, including theory of flight and the operation and maintenance of airplanes and general safety practices and procedures for coping with emergencies and critical situations, and

(d) Civil Air Regulations pertaining to the privileges and limitations of a commercial pilot and the general operating, air traffic, and accident reporting rules

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-12 24 F.R. 9364 Nov 20 1959]

§ 20 43-1 Aeronautical knowledge (FAA policies which apply to § 20 43)

The commercial pilot written examination will be given by inspectors only^{*}

[Supp 8 22 F.R. 5536 July 13 1957]

§ 20 44 Aeronautical experience

An applicant shall have acquired at least 200 hours of flight time credited in accordance with § 20 17 and meet each of the following minimum flight experience requirements

(a) 100 hours in powered aircraft which shall include 50 hours in airplanes of which at least 15 hours shall have been solo

(b) 100 hours as pilot in command including

(1) 50 hours of cross-country, each flight including a landing more than 25 miles from the point of departure,

(2) Takeoffs and landings from at least 2 different airports in accordance with two-way radio instructions from an airport traffic control tower, and

(3) One cross-country flight of at least 350 miles including landings at 3 points one of which must be not less than 150 miles from the point of departure,

(c) 10 hours of dual instruction in airplanes in preparation for the commercial pilot flight test. Such dual instruction

^{*} The Commercial Pilot Examination Guide which gives information on the preparation for the commercial pilot written examination is available from local flying school operators or the Government Printing Office, Washington, D.C. for 75¢

shall have been acquired within the 6 months preceding the commercial pilot flight test, and

(d) 10 hours of instruction in the operation of an airplane in flight solely by reference to instruments which shall include not less than 5 hours of dual instrument instruction given by a rated instrument flight instructor. The remaining 5 hours may be given by the holder of a flight instructor certificate with an airplane rating

NOTE The holder of a commercial pilot certificate bearing an endorsement that he did not meet the required 10 hours of instrument flight experience may have such endorsement removed upon presentation of reliable documentary evidence showing that he has met the 10 hours of required flight instruction and has successfully accomplished the skill test required by § 20 45(e) [21 FR 6502 Aug 29 1956 as amended by Amdt 20-12, 24 FR 9364 Nov 20 1959]

§ 20 44-1 Recommendation of Flight Instructor (FAA policies which apply to § 20 44(c))

The written recommendation of an appropriately rated Limited Flight Instructor or a Flight Instructor will be accepted for an application for a commercial flight test

[Supp 8 22 FR 5537 July 13 1957]

§ 20 44-2 Instrument experience endorsement (FAA policies which apply to § 20 44(d))

A commercial pilot certificate issued to an applicant who does not meet the experience requirements of § 20 44(d) will bear the endorsement 'Holder does not meet the instrument experience requirements'

[Supp 8, 22 FR 5537 July 13 1957]

§ 20 44-3 Night experience endorsement (FAA policies which apply to § 20 44)

A commercial pilot certificate issued to an applicant who does not have at least 5 hours of flight by night including not less than ten takeoffs and ten landings by night as pilot in command and as sole manipulator of the controls will bear the endorsement 'Holder does not

meet the night flight requirements of ICAO ''

[Supp 8 22 FR 5537 July 13 1957]

§ 20 44-4 Dual commercial flight test preparation (FAA interpretations which apply to § 20 44(c))

The 10 hours of dual flight instruction in airplanes in preparation for the commercial pilot flight test will be acquired by the applicant in addition to any dual instruction received prior to the issuance of a private pilot certificate

[Supp 9 23 FR 2244 Apr 5 1958]

§ 20 45 Aeronautical skill

An applicant shall competently perform the following maneuvers

(a) A series of 3 landings from an altitude not to exceed 1,000 feet with engine throttled and a 180° change in direction, the aircraft touching the ground in normal landing attitude beyond and within 200 feet of a designated line or point. At least one landing shall be accomplished from a forward slip,

(b) A spiral in each direction of not less than 3 full turns in a banked attitude of not less than 60°, with engine throttled

(c) 3 shallow on-pylon figure eights, 3 steep on-pylon figure eights and one 720° power turn in each direction in a banked attitude of at least 60°. During each of these maneuvers the total variation in altitude shall not exceed 100 feet, and

(d) Straight climbs, climbing turns, slips maneuvers at minimum controllable speeds, and emergency maneuvers such as simulated forced landings and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes

(e) Demonstrate in simulated instrument flight to an FAA Inspector or a designated flight examiner with an instrument rating ability to safely control an aircraft manually by sole reference to the aircraft flight instruments. This demonstration shall include manual control in the following

(1) Recovery from a well-developed power-on moderate turn spiral in a medium banked attitude

(2) Recovery from a high-angle climb in a turn

NOTE High-angle climb is one that if allowed to continue another 30 seconds at cruising power would result in stalling the aircraft

⁷ The above endorsements do not restrict nor affect in any way the privileges of the certificate for flight in the United States or its possessions. However they do restrict the holder of the certificate from piloting airplanes commercially in foreign countries (members of ICAO) without specific consent

(3) Standard rate turns of 180° and 360° duration to within $\pm 10^\circ$ and $\pm 20^\circ$, respectively, of proper heading, and within ± 150 feet of altitude

(4) Maximum safe performance climbing turns of 180° duration followed by continued straight climb to predetermined altitude requiring not less than one minute straight climb performed within ± 10 knots of airspeed and $\pm 10^\circ$ of proper heading

(5) Two consecutive descending 90° turns using normal approach power for reducing altitude performed within ± 10 knots of airspeed and $\pm 10^\circ$ of proper heading. At completion of first 90° turn continue straight descent for 1 minute. Complete second 90° descending turn and continue straight descent for 1½ minutes

NOTE This maneuver can be used to simulate a safe but not precise low approach (1000) to an airport with the instructor acting as radar advisory control

(6) Straight and level flight performed within $\pm 10^\circ$ of proper heading, 100 feet of altitude and 10 knots of airspeed

NOTE Safe and positive manual control not precision is the basic criteria for a satisfactory demonstration but the commercial pilot applicant must maintain control of the aircraft within the prescribed limits of heading altitude and airspeed

(f) Planning a cross-country flight to a specified destination reckoning with weather conditions and forecasts winds aloft information airport and radio navigational facilities pertinent aircraft characteristics range and performance, and use of appropriate charts

(g) Cross-country flying using pilotage dead reckoning, and radio aids for navigation including change of course to an alternate airport coping with simulated in-flight emergencies and the use of radio for two-way communications with appropriate ground radio facilities

NOTE Detailed information on present flight test procedures and standards are contained in Flight Operation and Airworthiness Release No 420 Revision of the information in this release will be issued as F A A Bureau of Flight Standards Flight Test Guides and will contain appropriate supplemental information concerning the maneuvers required by these amendments. These flight test guides may be purchased from the Superintendent of Documents Government Printing Office Washington 25 D C

[21 FR 6502 Aug 29 1956 as amended by Amdt 20-12 24 FR 9364 Nov 20 1959]

§ 20 45-1 Commercial pilot flight test—airplanes (FAA policies which apply to § 20 45)

(a) *Flight test items* (1) The commercial pilot flight test is given in 3 phases. The failure of any required item in any phase constitutes the failure of that phase and of the whole test. The whole phase failed must be satisfactorily completed at the time of reapplication

(2) A flight test may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the whole test impossible. In such cases, credit will be allowed for only a whole phase successfully completed

(3) An applicant for a commercial pilot certificate with a rating on airplanes will be required to demonstrate the competent performance of the following procedures and maneuvers

PHASE I—ORAL OPERATIONAL EXAMINATION

(i) Airplane registration, airworthiness and equipment documents

(ii) Airplane logbooks and airworthiness inspection reports

(iii) Airplane performance range and operation (from Airplane Flight Manual)

(iv) Airplane loading including fuel oil and baggage capacities

(v) Airplane line check

(vi) Use of radio for voice communication (may be simulated when necessary)

PHASE II—BASIC TECHNIQUES

(i) Preflight operations

(ii) Taxiing

(iii) At least three takeoffs with three accuracy landings beyond and within 200 feet of a mark including

(a) A slip to a landing (if 3-control airplane used)

(b) Crosswind takeoff and landing

(c) Short field takeoff and power approach and landing

(d) Soft field takeoff and landing

(e) Wheel landings in tailwheel type airplanes or full stall landings in tricycle type airplanes

(iv) Airport traffic pattern

(v) Forced landings (single-engine only) and simulated emergencies

(vi) Emergency operation of airplane equipment

(vii) Engine-out emergencies if multi-engine airplane used

(a) Engine-out minimum control speed demonstration

(b) Use of engine-out best rate-of-climb speed

(c) Maneuvering with one engine out (feathered if possible otherwise cut off and windmilling)

- (d) Effect on engine-out performance of failure to feather extension of gear and flaps and various combinations of these
- (e) Approach and landing with one engine set to zero thrust

PHASE III—PRECISION MANEUVERS

- (i) Gilding spirals about a point on the ground
- (ii) Three consecutive shallow on-pylon eights
- (iii) Three consecutive steep on-pylon eights
- (iv) One right and one left 720° steep power turn
- (v) Lazy eights
- (vi) Chandelles
- (vii) Maneuvering at minimum controllable airspeed
- (viii) Stalls from all normally anticipated flight attitudes with and without power

(b) *Evaluation of performance* The applicant's performance will be evaluated on the basis of the judgment coordination accuracy, and smoothness displayed. A competent performance of any flight maneuver is one during which the pilot is obviously the master of the airplane and the successful outcome of the maneuver is never in doubt.

[Supp 8 22 F R 5537 July 13 1957]

Subpart C—Pilot Certificates, Rotorcraft Rating

STUDENT

§ 20 50 Age

16 years is the minimum age for the issuance of a student pilot certificate. If an applicant is less than 21 years of age and is not a regular or reserve member of the armed forces of the United States or enrolled in an established ROTC or other training program of such armed forces at the time of making application he shall submit with his application the written consent of either parent or of his legal or natural guardian.

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-1 21 F R 10369 Dec 28 1956]

§ 20 50-1 Minor applicants (FAA policies which apply to § 20 50)

The FAA policies and interpretations which apply to minor applicants for student pilot certificates for rotorcraft are identical with those for airplanes under § 20 20.

[Supp 8 22 F R 5537 July 13, 1957]

§ 20 51 Education

An applicant shall be able to read, speak and understand the English lan-

guage, or an appropriate operation limitation shall be placed on his student pilot certificate.

§ 20 51-1 English language limitations (FAA policies which apply to § 20 51)

An applicant not able to meet the requirements of this section will be issued a student pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language.

[Supp 8 22 F R 5537 July 13 1957]

§ 20 52 Physical standards

An applicant shall hold at least a valid third class medical certificate issued in accordance with the physical standards prescribed in Part 29 of this subchapter.

§ 20 52-1 Evidence of physical qualification (FAA policies which apply to § 20 52)

A first- second- or third-class FAA medical certificate issued within the preceding 24 calendar months will be accepted for the issuance of a student pilot certificate.

[Supp 8 22 F R 5537 July 13 1957]

§ 20 53 Requirements for solo flight

A student pilot shall not operate a rotorcraft in solo flight until

(a) He is familiar with the general and visual flight rules of Part 60 of this subchapter,

(b) He has received dual instruction in such preparatory and flight procedures as preflight inspection, starting, warming up, operating and stopping the engine, taxiing, take-offs, hovering, landing, and parking, traffic pattern procedures and emergency procedures, including engine failure, and

(c) His student certificate has been endorsed by an appropriately rated flight instructor who has examined him and found him to have complied with the provisions of paragraphs (a) and (b) of this section and otherwise to be competent to make solo flights.

§ 20 54 Flight area limitations

A student pilot shall not operate a rotorcraft in solo flight outside of a local

area designated by his flight instructor until

(a) He is familiar with such flight planning elements as plotting courses, estimating time en route and fuel required and obtaining and evaluating weather reports,

(b) He has received dual instruction in pilotage by reference to aeronautical charts conforming with air traffic control instructions furnished by radio or lights, as appropriate, and safe operating practices in simulated emergencies which might occur due to engine failure, deteriorating weather, getting lost, and similar critical situations, and

(c) His student pilot certificate has been endorsed by an appropriately rated flight instructor who has found him to have complied with paragraphs (a) and (b) of this section and otherwise to be competent to make solo cross-country flights

PRIVATE

§ 20 60 Age

17 years is the minimum age for the issuance of a private pilot certificate

[Amdt 20-1 21 F R 10369 Dec 28 1956]

§ 20 61 Education

An applicant shall be able to read speak and understand the English language, or an appropriate operation limitation shall be placed on his pilot certificate

§ 20 61-1 English language limitations
(FAA policies which apply to § 20 61)

A private pilot certificate with a rotorcraft category rating will bear the same limitations prescribed for pilot certificates with airplane ratings by § 20 31-1, when appropriate

[Supp 8 22 F R 5537 July 13 1957]

§ 20 62 Physical standards

An applicant shall hold at least a valid third class medical certificate issued in accordance with the physical standards prescribed in Part 29 of this subchapter

§ 20 62-1 Evidence of physical qualification
(FAA policies which apply to § 20 62)

A first- second-, or third-class FAA medical certificate issued within the preceding 24 calendar months will be accepted for the issuance of a private pilot certificate

[Supp 8 22 F R 5537 July 13 1957]

§ 20 63 Aeronautical knowledge

An applicant shall pass an examination on the following

(a) The Civil Air Regulations governing private pilot privileges and limitations, and general operating, air traffic, and accident reporting rules,

(b) The practical aspects of cross-country flying, including flight planning, map reading, pilotage, and radio communication procedures,

(c) The recognition of dangerous weather conditions and the evaluation of weather reports, and

(d) General safety practices in the operation of rotorcraft

§ 20 63-1 Aeronautical knowledge
(FAA policies which apply to § 20 63)

The private pilot written examination will be given by inspectors only *

[Supp 8 22 F R 5537 July 13 1957]

§ 20 64 Aeronautical experience

An applicant shall present his student pilot certificate appropriately endorsed for solo and cross-country flights and meet each of the following minimum flight experience requirements

(a) 40 hours dual instruction and solo flight time,

(b) 15 hours of solo flight time in rotorcraft, and

(c) 3 hours of solo cross-country flying which shall include a landing at an airport more than 25 miles from the point of departure

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-3 22 F R 2658 Apr 17 1957]

§ 20 64-1 Recommendation of Flight Instructor
(FAA policies which apply to § 20 64)

The written recommendation of an appropriately rated Limited Flight Instructor or Flight Instructor will be accepted for an application for a private pilot flight test

[Supp 8 22 F R 5537 July 13 1957]

* The booklet Questions and Answers for Private Pilots gives material to aid in the preparation for the private pilot written examination for rotorcraft is available from local flying school operators or from the Government Printing Office Washington 25, D C for 25 cents

§ 20 65 Aeronautical skill

An applicant shall satisfactorily accomplish a practical examination with respect to the maneuvers prescribed by the Administrator appropriate to the type of rotorcraft used

§ 20 65-1 Private pilot flight test—rotorcraft (FAA policies which apply to § 20 65)

(a) *Flight test items* (1) The flight test will be given in two phases. The failure of any required item in either phase will constitute the failure of that phase and of the whole test. The whole phase failed must be successfully completed at the time of reapplication.

(2) The flight test may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the test impossible. In such cases, credit will be allowed for only a whole phase successfully completed.

(3) The applicant will be required to demonstrate the competent performance of the following procedures and maneuvers

PHASE I—BASIC TECHNIQUES

- (i) Preflight check and oral equipment examination
- (ii) Preflight operations
- (iii) Taxiing (if rotorcraft equipped for taxiing on the surface)
- (iv) Normal and crosswind takeoffs and landings
- (v) High altitude takeoffs and roll-on landings
- (vi) Climbs and descents
- (vii) Emergencies including autorotative approaches

PHASE II—PRECISION MANEUVERS

- (i) Hovering—upwind downwind and crosswind
- (ii) Hovering turns—180° and 360° right and left
- (iii) Turns with medium banks
- (iv) S turns
- (v) Pattern flying with constant heading
- (vi) Rapid flying decelerations (quick stops)

An applicant for a flight test in an autogiro will be required to satisfactorily accomplish all maneuvers required for the practical test in airplanes

(b) *Evaluation of performance* The applicant's performance will be evaluated by the examiner on the basis of the judgment coordination smoothness and accuracy displayed. A competent per-

formance of any flight maneuver is one during which the pilot is obviously the master of the aircraft, and the successful outcome of the maneuver is never in doubt.

[Supp 8 22 FR 5537 July 13 1957 as amended by Supp 9 23 FR 2244 Apr 5 1958]

COMMERCIAL

§ 20 70 Age

18 years is the minimum age for the issuance of a commercial pilot certificate [Amdt 20-1 21 FR 10369 Dec 28 1956]

§ 20 71 Education

An applicant shall be able to read, speak, and understand the English language or an appropriate operation limitation shall be placed on his pilot certificate.

§ 20 71-1 English language limitations (FAA policies which apply to § 20 71)

The English language limitations entered on commercial pilot certificates will be identical with those prescribed for commercial pilot certificates by § 20 41-1 [Supp 8 22 FR 5538 July 13 1957]

§ 20 72 Physical standards

An applicant shall hold at least a valid second class medical certificate issued in accordance with the physical standards prescribed in Part 29 of this subchapter.

§ 20 72-1 Evidence of physical qualification (FAA policies which apply to § 20 72)

A first- or second-class FAA medical certificate issued within the preceding 12 calendar months will be accepted for the issuance of a commercial pilot certificate.

[Supp 8 22 FR 5538 July 13 1957]

§ 20 73 Aeronautical knowledge

An applicant shall pass a written examination based on the following:

(a) Meteorology including the recognition of basic weather conditions and trends, and the acquisition and use of weather information disseminated by the U S Weather Bureau,

(b) Navigation, including pilotage, dead reckoning and the use of instruments and radio aids to air navigation,

(c) Principles of safe flight operations including theory of flight and the operation and maintenance of rotorcraft

and general safety practices and procedures for coping with emergencies and critical situations, and

(d) Civil Air Regulations pertaining to the privileges and limitations of a commercial pilot and the general operating air traffic, and accident reporting rules

§ 20 73-1 Commercial pilot written examination (FAA policies which apply to § 20 73)

The commercial pilot written examination will be given by inspectors only [Supp 8 22 F R 5538 July 13 1957]

§ 20 74 Aeronautical experience

An applicant shall have acquired at least 150 hours of flight time credited in accordance with § 20 17 and meet each of the following minimum flight experience requirements

(a) 100 hours in powered aircraft which shall include 50 hours in rotorcraft of which at least 15 hours shall have been solo,

(b) 100 hours as pilot in command of which 20 hours shall have been cross-country, and

(c) 10 hours of dual instruction in rotorcraft in preparation for the commercial pilot flight test

[21 FR 6502 Aug 29 1956 as amended by Amdt 20-3 22 FR 2658 Apr 17 1957]

§ 20 74-1 Recommendation of Flight Instructor (FAA policies which apply to § 20 74)

The written recommendation of an appropriately rated Limited Flight Instructor or Flight Instructor will be accepted for the commercial pilot flight test

[Supp 8 22 F R 5538 July 13 1957]

§ 20 74-2 Flight time endorsement (FAA policies which apply to § 20 74)

A commercial pilot certificate issued under this section to a pilot who has not logged at least 200 hours of pilot flight time or graduated from a FAA approved commercial rotorcraft pilot training course will bear the endorsement 'Holder does not meet the flight time requirements of ICAO'

[Supp 8 22 F R 5538, July 13 1957]

§ 20 75 Aeronautical skill

An applicant shall competently perform the procedures and maneuvers pre-

scribed by the Administrator appropriate to the type of rotorcraft used

§ 20 75-1 Commercial pilot flight test—rotorcraft (FAA policies which apply to § 20 75)

(a) *Flight test items* (1) The flight test will be given in two phases The failure of any required maneuver in either phase will constitute the failure of that phase and of the whole flight test The phase failed must be successfully completed at the time of reapplication

(2) A flight test may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the whole test impossible In such cases, credit will be allowed for only a whole phase successfully completed

(3) The applicant will be required to demonstrate the competent performance of the following procedures and maneuvers

PHASE I—BASIC TECHNIQUES

(i) Preflight check and oral equipment examination

(ii) Preflight operations

(iii) Taxiling (in rotorcraft equipped for operation on the surface)

(iv) Normal takeoffs and landings

(v) Crosswind takeoffs and landings

(vi) High altitude takeoff and roll-on landing

(vii) Climbs and descents

(viii) Emergencies including autorotative approaches (landing optional as appropriate)

PHASE II—PRECISION MANEUVERS

(i) Hovering upwind downwind and crosswind

(ii) Pattern flying with constant and with changing headings

(iii) Hovering turns—180 and 360° right and left

(iv) Left turns

(v) Turns with medium banks

(vi) Rapid decelerations (quick stops)

An applicant for a flight test in an autogiro will be required to satisfactorily accomplish all maneuvers required for the practical test in airplanes

(b) *Evaluation of performance* The applicant's performance will be evaluated by the examiner on the basis of the judgment, coordination smoothness, and accuracy demonstrated A competent performance is one during which the pilot is obviously inmaster of the aircraft,

and the successful outcome of the maneuver is never in doubt

[Supp 8 22 F R 5538 July 13 1957 as amended by Supp 9 23 F R 2244 Apr 5 1958]

Subpart D—Pilot Certificates, Glider Rating

STUDENT

§ 20 80 Age

14 years is the minimum age for the issuance of a student pilot certificate. If an applicant is less than 21 years of age and is not a regular or reserve member of the armed forces of the United States or enrolled in an established ROTC or other training program of such armed forces at the time of making application, he shall submit with his application the written consent of either parent or of his legal or natural guardian.

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-1 21 F R 10369 Dec 28 1956]

§ 20 80-1 Applicants under 16 years of age (FAA policies which apply to § 20 80)

A student pilot certificate issued to an applicant who is under 16 years of age will bear the limitation "Glanders only."

[Supp 8 22 F R 5538 July 13 1957]

§ 20 80-2 Minor applicants (FAA policies which apply to § 20 80)

The FAA policies and interpretations applicable to the age requirements for student pilot certificates for airplanes under § 20 20 apply to applicants for student pilot certificates for gliders.

[Supp 8 22 F R 5538 July 13 1957]

§ 20 81 Education

An applicant shall be able to read, speak, and understand the English language or an appropriate operation limitation shall be placed on his student pilot certificate.

§ 20 81-1 English language limitations (FAA policies which apply to § 20 81)

An applicant not able to meet the requirements of this section will be issued a student pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language.

[Supp 8 22 F R 5538 July 13 1957]

§ 20 82 Physical standards

An applicant shall certify that he has no known physical defect which renders him incompetent to pilot a glider.

§ 20 82-1 Evidence of physical qualification (FAA policies which apply to § 20 82)

A first-, second-, or third-class FAA medical certificate issued within the preceding 24 calendar months, or the applicant's statement on his application that he has no known physical defect which renders him incompetent to pilot gliders will be accepted for the issuance of a student pilot certificate. An applicant who certifies his own physical condition will receive a student pilot certificate with the limitation "Glanders only."

[Supp 8 22 F R 5538 July 13 1957]

§ 20 83 Requirements for solo flight

A student pilot shall not operate a glider in solo flight until:

(a) He is familiar with the general and visual flight rules of Part 60 of this subchapter and the procedure to follow in conducting preflight inspections,

(b) He has received flight instruction in take-offs, landings, glides, and gliding turns, and recovery from stalls entered from all normally anticipated flight attitudes, and

(c) His student certificate has been endorsed by an appropriately rated flight instructor or a commercial pilot with a glider rating who has examined him and found him to have complied with the provisions of paragraphs (a) and (b) of this section and otherwise to be competent to make solo flights.

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-3 22 F R 2658 Apr 17 1957]

§ 20 84 Flight area limitations

A student pilot shall not operate a glider in solo flight outside of a local area designated by his flight instructor until:

(a) He is familiar with obtaining and evaluating weather reports,

(b) He has received flight instruction in cross-country navigation by reference to aeronautical charts, and

(c) His student pilot certificate has been endorsed by an appropriately rated flight instructor or a commercial pilot with a glider rating who has found him to have complied with paragraphs (a) and (b) of this section and otherwise to

be competent to make solo cross-country flights

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-3 22 F.R. 2658 Apr 17 1957]

PRIVATE

§ 20 90 Age

16 years is the minimum age for the issuance of a private pilot certificate

[Amdt 20-1 21 F.R. 10369 Dec 28 1956]

§ 20 90-1 Applicants under 17 years of age (FAA policies which apply to § 20 90)

A private pilot certificate with a glider category rating issued to an applicant who is under 17 years of age will bear the limitation "Glider only"

[Supp 8 22 F.R. 5538 July 13 1957]

§ 20 91 Education

An applicant shall be able to read, speak, and understand the English language, or an appropriate operation limitation shall be placed on his pilot certificate

§ 20 91-1 English language limitation (FAA policies which apply to § 20 91)

An applicant not able to meet the requirements of this section will be issued a private pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language

[Supp 8 22 F.R. 5538 July 13 1957]

§ 20 92 Physical standards

An applicant shall certify that he has no known physical defect which renders him incompetent to pilot a glider

§ 20 92-1 Evidence of physical qualification (FAA policies which apply to § 20 92)

A first-, second-, or third-class FAA medical certificate issued within the preceding 24 calendar months, or the applicant's statement on his application that he has no known physical defect which renders him incompetent to pilot a glider will be accepted for the issuance of a private pilot certificate with a glider rating. An applicant who certifies his own physical condition will receive a private pilot certificate bearing the limitation "Glider only"

[Supp 8 22 F.R. 5538 July 13 1957]

§ 20 93 Aeronautical knowledge

An applicant shall pass an examination on the following

(a) The Civil Air Regulations governing private pilot privileges and limitations, and general operating, air traffic, and accident reporting rules,

(b) The practical aspects of cross-country flying,

(c) The recognition of dangerous weather conditions and the evaluation of weather reports and

(d) General safety practices in the operation of gliders

§ 20 93-1 Written examination (FAA policies which apply to § 20 93)

The private pilot written examination will be given by inspectors only*

[Supp 8 22 F.R. 5538 July 13 1957]

§ 20 94 Aeronautical experience

An applicant shall present his student pilot certificate appropriately endorsed for solo and cross-country flights and meet each of the following minimum flight experience requirements

(a) 100 glider flights which shall include 25 flights during each of which a 360° turn was made or 10 hours of glider flight time which shall include 50 glider flights or 30 flights if flight training has been accomplished using aero tows or 3 hours dual instruction in light airplanes directed toward glider training and 7 hours of glider flight time which shall include 50 gliding flights, and

(b) One hour of flight instruction in recovery from stalls entered from all normally anticipated flight attitudes

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-3 22 F.R. 2658 Apr 17 1957]

§ 20 94-1 Stall instruction for private glider pilot certificates (FAA policies which apply to § 20 94(b))

The required flight instruction in stalls may be obtained either in gliders or in powered airplanes. If such instruction is given in an airplane it must be given by a Limited Flight Instructor

* The booklet Questions and Answers for Private Pilots which gives information for use in preparing for the Private Glider pilot written examination is available from local flying school operators or from the Government Printing Office Washington 25 D C for 25¢

or a Flight Instructor with an Airplane Instructor rating

[Supp 8 22 F.R 5538 July 13 1957]

§ 20 95 Aeronautical skill

An applicant shall demonstrate a satisfactory level of competence in the following procedures and maneuvers

(a) Preparatory flight procedures,

(b) At least 2 flights of which one shall include a 360° approach to the left and one a 360° approach to the right landing each time beyond and within 200 feet of a designated point or line, and

(c) Recovery from stalls entered from all normally anticipated flight attitudes

§ 20 95-1 Private pilot flight test—gliders (FAA policies which apply to § 20 95)

(a) *Flight test items* (1) The flight test will be given in two phases. The failure of a required item in either phase will constitute the failure of that phase and of the whole test. The whole phase failed must be satisfactorily completed at the time of reapplication

(2) The flight test may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the test impossible. In such cases credit will be allowed for only a whole phase successfully completed

(3) The applicant will be required to demonstrate the competent performance of the following maneuvers and procedures

PHASE I—BASIC TECHNIQUES

(i) Preflight check and oral equipment examination

(ii) Preflight operations

(iii) Auto pulley or winch tow or airplane tow

(iv) 360° approaches right and left landing within 200 feet beyond a line or mark

PHASE II—SPECIAL MANEUVERS

(1) Stalls and slow flight (must be demonstrated in a glider)

(b) *Evaluation of performance* The applicant's performance will be evaluated by the examiner on the basis of judgment, coordination, smoothness, and accuracy demonstrated. A competent performance is one during which the pilot is obviously the master of the aircraft, and the successful outcome of the maneuver is never seriously in doubt

[Supp 8 22 F.R 5538 July 13, 1957]

COMMERCIAL

§ 20 100 Age

Eighteen years is the minimum age for the issuance of a commercial pilot certificate

[Amdt 20-1 21 F.R 10369 Dec 28 1956]

§ 20 101 Education

An applicant shall be able to read, speak, and understand the English language or an appropriate operation limitation shall be placed on his pilot certificate

§ 20 101-1 English language limitations (FAA policies which apply to § 20 101)

An applicant not able to meet the requirements of this section will be issued a commercial pilot certificate with operating limitations as determined by an inspector to be necessary for the safe operation of aircraft. These limitations may be removed when the holder demonstrates to an inspector that he can read, speak, and understand the English language

[Supp 8 22 F.R 5538 July 13 1957]

§ 20 102 Physical standards

An applicant shall certify that he has no known physical defect which renders him incompetent to pilot a glider

§ 20 102-1 Evidence of physical qualification (FAA policies which apply to § 20 102)

A first-, second-, or third-class FAA medical certificate issued within the preceding 24 calendar months, or the applicant's statement on his application form that he has no known physical defect which renders him incompetent to pilot a glider will be accepted for the issuance of a commercial pilot certificate with a glider category rating. An applicant who certifies his own physical condition will receive a commercial pilot certificate bearing the limitation "Glanders only"

[Supp 8 22 F.R 5539 July 13 1957]

§ 20 103 Aeronautical knowledge.

An applicant shall pass a written examination based on the following

(a) Meteorology including the recognition of basic weather conditions and trends and the acquisition and use of weather information disseminated by the U.S. Weather Bureau,

(b) Navigation including pilotage and the use of navigational instruments,

(c) Principles of safe flight operations including theory of flight and the operation and maintenance of gliders, and

(d) Civil Air Regulations pertaining to the privileges and limitations of a commercial pilot and the general operating air traffic, and accident reporting rules

§ 20 103-1 Commercial glider written examination (FAA policies which apply to § 20 103)

The commercial glider pilot written examination will be given by inspectors only

[Supp 8 22 F R 5539 July 13 1957]

§ 20 104 Aeronautical experience

An applicant shall have acquired at least 25 hours flight time credited in accordance with § 20 17 and meet the following minimum experience requirements

(a) 20 hours flight time in gliders,

(b) 2 hours of flight instruction in gliders in preparation for the commercial pilot flight test,

(c) 100 flights in gliders as pilot in command, and

(d) 25 glider flights with 360° right and left approaches

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-3 22 F.R. 2658 Apr 17 1957]

§ 20 105 Aeronautical skill

An applicant shall demonstrate a satisfactory level of competence in the following procedures and maneuvers

(a) Preparatory flight procedures,

(b) At least 2 flights, of which one shall include a 360° approach to the left and one a 360° approach to the right, landing each time beyond and within 100 feet of a designated point or line,

(c) A spiral in each direction of at least 3 full turns in a banked attitude of at least 45°,

(d) A glider flight when towed by an airplane during climb, and when above, below and to one side of the slipstream during level flight,

(e) A glider flight when launched by an automobile or winch and

(f) Recovery from stalls entered from all normally anticipated flight attitudes

§ 20 105-1 Commercial pilot flight test—gliders (FAA policies which apply to § 20 105)

(a) *Flight test items* (1) The flight test will be given in two phases The

failure of any required item in either phase constitutes the failure of that phase and of the whole test The whole phase failed must be satisfactorily completed at the time of reapplication

(2) A flight test may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the test impossible In such cases, credit will be allowed for only a whole phase successfully completed

(3) The applicant will be required to demonstrate the competent performance of the following procedures and maneuvers

PHASE I—BASIC TECHNIQUES

(i) Preflight check and oral equipment examination

(ii) Preflight operations

(iii) Auto pulley or winch tow

(iv) Airplane tow, above below, and to one side of slipstream

(v) 360 approaches right and left landing within 100 feet beyond a line or mark

PHASE II—SPECIAL MANEUVERS

(i) 3-turn spirals right and left with bank at least 45°

(ii) Stalls and slow flight (must be demonstrated in a glider)

(b) *Evaluation of performance* The applicant's performance will be evaluated by the examiner on the basis of the judgment, coordination smoothness, and accuracy demonstrated A competent performance is one during which the pilot is obviously the master of his aircraft, and the successful outcome of the maneuver is never in doubt

[Supp 8 22 F R 5539 July 13 1957]

Subpart E—Special Issuance of Pilot Certificates

§ 20 110 Graduates of certificated airman agencies

(a) A graduate of a certificated airman agency with a flying school rating shall be deemed to have met the aeronautical experience requirements of this part if he presents an appropriate certificate of graduation within 60 days after his graduation date *Provided* That an applicant for an instrument rating or a limited flight instructor certificate shall be (1) the holder of a commercial pilot certificate or (2) the holder of a private pilot certificate who meets the aeronautical experience requirements for the issuance of a commercial pilot certificate as set forth in § 20 44

(b) An applicant for a certificate or rating issued under the provisions of this part may be deemed to have met both the aeronautical knowledge and skill requirements or the aeronautical knowledge requirements only or the aeronautical skill requirements only, for such certificate or rating if he has, within the preceding 90 days graduated from the appropriate approved course of a certificated airman agency which is authorized by the Federal Aviation Agency to examine such applicants with respect to aeronautical skill or knowledge or both

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-7 23 F.R. 6663 Aug 28 1958 Amdt 20-13 25 F.R. 4344 May 17 1960]

§ 20 111 Military competence

(a) *Pilot certificates* An applicant for a private or commercial pilot certificate shall be deemed to have met the requirements for the issuance of such certificate if he passes a written examination on the Civil Air Regulations pertaining to pilot privileges and limitations general operating air traffic, and accident reporting rules and presents reliable evidence that

(1) He is a member of the armed forces of the United States, the National Guard or the Coast Guard or any reserve component thereof and either is on solo flying status as a rated pilot or the equivalent or has been graduated from and rated as a pilot or the equivalent by a military flying school within the preceding 12 months, or

(2) He has been honorably discharged from the armed forces the National Guard or the Coast Guard within the preceding 12 months and was at the time of discharge on solo flying status as a rated pilot or the equivalent. *Provided*, That if he has been honorably discharged for a period longer than 12 months preceding the date of application he shall be required to meet the prescribed physical standards and pass the appropriate flight test

(b) *Aircraft category, class, and type ratings* An applicant for a particular category, class, or type rating who has applied for or holds a pilot certificate issued on the basis of military competence or otherwise shall be issued appropriate ratings upon the presentation of reliable documentary evidence that he has had within 12 months preceding

the date of application at least 10 hours of flight time as pilot in command in military aircraft of a category, class, or type for which the rating is sought, or has passed an appropriate FAA or military flight test

(c) *Instrument rating* An instrument rating shall be issued to a private or commercial pilot who holds a currently effective military instrument rating if the standards under which the rating was issued are not less than those prescribed for the issuance of an instrument rating under this part

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-3 22 F.R. 2658 Apr 17 1957 Amdt 20-4 22 F.R. 7603 Sept 25 1957]

§ 20 111-1 Acceptable evidence of military status and experience (FAA policies which apply to § 20 111)

(a) *Membership* An official identification card issued by the service showing that the holder is a member of the Armed Forces of the United States, the National Guard the Coast Guard or any reserve component thereof will be accepted as evidence of membership

(b) *Solo flying status as a rated pilot* Acceptable documentary evidence of flight status shall consist of (1) official orders to solo flight status, (2) USAF Form 5 or a USN flight logbook properly endorsed to show solo flight status, (3) official orders showing graduation from and rating as a pilot by a military flying school or (4) a copy of orders showing duty involving flying as a rated pilot

(c) *Honorable discharge* An original or photostatic copy of a certificate of discharge from the U S Armed Forces will be accepted as evidence of discharge or release. Persons discharged from the service or removed from flight status for reasons of flight deficiency 'for the good of the service,' or as the result of disciplinary action will not be issued pilot certificates on the basis of military competence

(d) *Pilot experience* Documentary evidence of pilot flight time shall consist of USAF Forms 5 or Form 5 summaries or certified military logbooks. Pilot-in-command flight time in aircraft which normally have two pilots should be substantiated by official checkout records

[Supp 8 22 F.R. 5539, July 13, 1957]

§ 20 111-2 Flight test for aircraft rating (FAA interpretations which apply to § 20 111(h))

The flight test required by § 20 111(b) is an official military checkout as first pilot in the aircraft concerned or the FAA flight test prescribed by § 20 121(a) (2) or (b) (2)

[Supp 8 22 F.R. 5539 July 13 1957]

§ 20 111-3 Acceptable military instrument cards (FAA policies which apply to § 20 111(b))

Any military instrument card will be accepted as the basis for the issuance of an instrument rating until the date of expiration shown on the card

[Supp 8 22 F.R. 5539 July 13 1957]

§ 20 112 Foreign pilot certificates

(a) [Reserved]

(b) A pilot certificate with appropriate limitations may be issued for a specific purpose to an applicant who is a citizen of a foreign country and holds a currently effective pilot license issued by his government upon submitting to the Administrator reliable evidence of his aeronautical experience and passing an examination on the air traffic rules contained in Part 60 of this subchapter. The Administrator shall limit the duration of the certificate to not more than 12 months and may prescribe such additional limitations as he finds necessary for safety

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-6 23 F.R. 6374 Aug 20 1958]

§ 20 112-1 Recognition of foreign examinations and tests (FAA policies which apply to § 20 112(a))

The holder of a foreign pilot certificate may receive credit for examinations and tests listed in Appendix B¹⁰ upon presenting evidence acceptable to the inspector that he has passed the examinations and tests for which credit is sought. Applicants who seek credit for foreign pilot examinations and tests not listed should forward their requests direct to the General Safety Division, Federal Aviation Agency, Washington 25, D.C.

[Supp 2 22 F.R. 5539 July 13 1957]

¹⁰ Appendix B not filed with the Office of the Federal Register

§ 20 112-2 Special Purpose Pilot Certificates (FAA policies which apply to § 20 112(h))

(a) *Certificate and ratings* (1) A certificate issued on the basis of a valid foreign pilot certificate will be a Special Purpose Pilot Certificate showing clearly the operations which it authorizes

(2) The aircraft ratings contained will be based on the ratings appearing on the foreign pilot certificate presented. If the foreign certificate bears no such rating, ratings will be given for the aircraft which the applicant has flown at least 10 hours as pilot-in-command within the preceding 12 months. Additional aircraft ratings may be added to such certificates upon compliance with the requirements of this part for such ratings

(3) Instrument ratings will not be issued in connection with Special Purpose Pilot Certificates

(b) [Reserved]

(c) *Physical standards* The applicant will present evidence of currently meeting the physical requirements of his own country, or may present a current FAA Medical Certificate of a grade appropriate to the certificate sought

(d) *Limitations* (1) Each such pilot certificate will bear a notation showing the basis on which it is issued, and will be limited to the specific purpose for which it is issued. Examples of such purposes are: Ferry flights of new aircraft for export; the operation of U.S. registered aircraft in foreign countries, and flights for the maintenance of proficiency in the United States. Requests for such certificates for other specific purposes will be forwarded to Washington for an individual determination

(2) A certificate issued to a foreign pilot who is unable to read, speak, and understand the English language will bear such additional limitations as the issuing inspector deems necessary for safety

[Supp 8 22 F.R. 5539 July 13 1957]

Subpart F—Aircraft and Instrument Ratings

AIRCRAFT RATINGS

§ 20 120 Airplane class ratings

Aircraft ratings issued to private and commercial pilots shall be classified as follows

- (a) *Category ratings* (1) Airplane
- (2) Rotorcraft
- (3) Glider
- (b) *Class ratings* (1) Single-engine land
- (2) Multiengine land
- (3) Single-engine sea
- (4) Multiengine sea

(c) *Type ratings* Each type of aircraft having a maximum certificated take-off weight of more than 12,500 pounds

[21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-3 22 F.R. 2658 Apr 17 1957]

§ 20 120-1 Helicopter category ratings (FAA interpretations which apply to § 20 120(a)(2))

A helicopter rating entered on a pilot certificate prior to March 1, 1957 will be accepted as the equivalent of the rotorcraft rating established by § 20 120(a)(2)

[Supp 8 22 F.R. 5539 July 13 1957]

§ 20 120-2 Class ratings on multi-jet airplanes with engines in fuselage (FAA policies which apply to § 20 120(h))

An airplane with multiple jet engines in the fuselage or wing roots will be considered as an Airplane Single-Engine Land (or Sea) for the purpose of issuing aircraft ratings under § 20 120 because the failure of one such engine does not require the application of multiengine flight control techniques to maintain control of the airplane

[Supp 9 23 F.R. 2244 Apr 5 1958]

§ 20 121 Additional aircraft ratings

An applicant for an additional aircraft rating subsequent to the original issuance of a private or commercial pilot certificate shall meet the following requirements

(a) *Category rating* (1) A pilot holding an airplane category rating who applies for a rotorcraft category rating shall have acquired at least 25 hours of dual instruction and solo flight time in rotorcraft 5 of which shall have been solo and shall pass an appropriate flight test

(2) A pilot holding an airplane or rotorcraft category rating who applies for a glider category rating shall have acquired at least 2 hours of flight instruction and solo flight time in gliders

which shall include at least 10 solo glider flights in which 360° right and left approaches have been made, and shall pass an appropriate flight test

(3) A pilot holding a glider category rating who applies for an airplane or rotorcraft rating shall meet all the requirements for the original issuance of such category rating and shall pass an appropriate flight test

(4) A pilot holding a rotorcraft category rating who applies for an airplane category rating shall have acquired the total flight time required for the original issuance of such category rating shall have acquired at least 5 hours of solo flight time in airplanes and shall pass an appropriate flight test

(b) *Class or type rating* An applicant for an additional class or type rating shall

(1) Have made at least 5 takeoffs and landings in solo flight or as sole manipulator of the controls when accompanied by a pilot rated for the aircraft for which the class or type rating is sought

(2) Pass an appropriate flight test

(Sec 313(a) 601 602 608 609 610 72 Stat 752 775 779 780 49 USC 1354 1421 1422 1428 1429 1430) [21 F.R. 6502 Aug 29 1956 as amended by Amdt 20-4 22 F.R. 7603 Sept 25 1957 Amdt 20-5 22 F.R. 9589 Nov 30 1957 Amdt 20-11 24 F.R. Sept 18 1959]

§ 20 121-1 Flight tests for additional ratings (FAA policies which apply to § 20 121)

The flight test required for an additional aircraft rating will include all procedures maneuvers and techniques not required for the pilot certificate and ratings already held

[Supp 8 22 F.R. 5539 July 13, 1957]

§ 20 121-2 Five takeoffs and landings as pilot in command (FAA interpretations which apply to § 20 121(b)(1))

In airplanes which require more than one pilot (including the Douglas DC-3 and the Lockheed 18) the 5 takeoffs and landings may be accomplished as pilot-in-command, or as copilot performing the functions of the pilot-in-command while the instructor or check pilot performs the functions of copilot

[Supp 9 23 F.R. 2244 Apr 5 1958]

INSTRUMENT RATING

§ 20 125 Issuance

An instrument rating shall be issued to a private or commercial pilot who meets the prescribed aeronautical knowledge experience, and skill requirements

§ 20 126 Aeronautical knowledge

An applicant shall pass a written examination based on the following

(a) Civil Air Regulations as they apply to flight under IFR conditions,

(b) Radio navigation systems and procedures instrument landing systems and procedures, and radio communication procedures, and

(c) Meteorology, including the characteristics of air masses and fronts and the weather associated with them, the elementary principles of forecasting and the availability, evaluation and utilization of the various types of meteorological reports

§ 20 126-1 Instrument written examination (FAA policies which apply to § 20 126)

The instrument rating written examination is given by inspectors only¹¹
[Supp 8 22 F R 5539 July 13 1957]

§ 20 127 Aeronautical experience

An applicant shall meet the following minimum flight experience requirements

(a) He shall hold (1) a commercial pilot certificate or (2) a private pilot certificate and meet the aeronautical experience requirements of § 20 44(a) and (b), and

(b) He shall have acquired 40 hours of instrument time under actual or simulated instrument conditions, of which not less than 20 hours shall have been in flight and have included 10 hours of instrument flight instruction given by a rated instrument flight instructor

(Secs 313(a) 601 602 608-610 72 Stat 754 775 776 779-780 49 USC 1354 1421 1422 1428-1430) [21 F R 6502 Aug 29 1956 as amended by Amdt 20-9 24 F R 5487 July 8 1959]

¹¹ The Instrument Written Examination Guidebook which gives information for use in preparing for the instrument rating written examination will be available from local flying schools or from the Government Printing Office Washington 25 D C after July 1 1957

§ 20 127-1 Instrument flight instruction (FAA interpretations which apply to § 20 127(b))

A "rated instrument flight instructor" as used in this section means the holder of a Limited Flight Instructor or a Flight Instructor Certificate with an Instrument Instructor rating

[Supp 8 22 F R 5539 July 13 1957]

§ 20 127-2 Recommendation of Flight Instructor (FAA policies which apply to § 20 127)

The written recommendation of a Limited Flight Instructor, or a Flight Instructor with an instrument instructor rating will be accepted for an application for the instrument rating flight test

[Supp 8 22 F R 5540 July 13 1957 as amended by Supp 9 23 F R 2244 Apr 5 1958]

§ 20 128 Aeronautical skill

An applicant shall demonstrate a satisfactory level of competence in the following procedures and maneuvers

(a) Flight maneuvers, solely by reference to instruments including recovery from critical attitudes such as steep turns spirals, and stalls using the minimum instrumentation prescribed for instrument flight in Part 43 of this subchapter

(b) Planning and conducting a simulated instrument flight including

(1) Preparing and filing an instrument flight plan

(2) Radio navigation including orientation

(3) Radio communications,

(4) A standard instrument approach complying with traffic control instructions and standard holding procedures and

(5) Recovery from emergency situations such as a missed approach, radio or instrument failure and failure of an engine if the test is conducted in a multi-engine airplane

§ 20 128-1 Instrument rating flight test (FAA policies which apply to § 20 128)

(a) *Flight test items* (1) The instrument rating flight test will be given in aircraft in which instrument flight is authorized by the regulations and the aircraft's equipment and operating limitations All aircraft used for

instrument flight tests shall have a hood slats polarized material, or other effective means of excluding outside visual reference from the pilot tested. The effectiveness of the means or device used shall be demonstrated to the satisfaction of the examiner.

(2) The flight test will be given in three phases. The failure of any required item in any phase will constitute the failure of that phase and of the whole test. The whole phase must be satisfactorily completed at the time of reapplication.

(3) A flight test may be discontinued at any time by the examiner or the applicant when the failure of a required item makes the successful completion of the test impossible. In such cases credit will be allowed for only each whole phase successfully completed.

(4) The applicant will be required to demonstrate the competent performance of the following procedures and flight maneuvers by reference to flight instruments.

PHASE I—ORAL OPERATIONAL EXAMINATION

- (1) Instrument flight planning
- (2) Preparing and filing an instrument flight plan
- (3) Aircraft performance range and fuel requirements
- (4) Required instrumentation and equipment and their proper use

PHASE II—INSTRUMENT FLYING

- (1) Straight and level flight¹²
- (2) Turns, climbs and descents¹²
- (3) Stalls and maneuvering at approach speeds
- (4) Steep turns
- (5) Recovery from unusual attitudes¹²
- (6) Engine-out procedures if test is given in multiengine airplane

PHASE III—RADIO NAVIGATION AND APPROACH PROCEDURES

- (1) Radio navigation including orientation using LF OMNI range or ADF
- (2) Use of radio for voice communication
- (3) Standard instrument approach to authorized IFR weather minimums (not more than 500 feet and 1 mile) including holding procedures
- (4) Missed approach procedures
- (5) Emergencies such as radio or instrument malfunctions
- (6) Compliance with airways traffic control instructions and procedures

(b) *Evaluation of performance.* The applicant's performance will be evaluated

¹² Maneuvers will be required with the use of the needle ball and airspeed only.

on the basis of the judgment, smoothness, and accuracy displayed. Significant errors on the dangerous side will be disqualifying. Any error which makes it necessary for the examiner to take over to avoid violating the aircraft's operating limitations, a loss of control, or collision with the ground will be disqualifying, and no second attempt will be allowed.

[Supp. 8 22 F. R. 5540 July 13 1957]

Subpart G—Flight Instructor Certificates

§ 20 130 Limited flight instructor certificates

A limited flight instructor certificate with appropriate ratings shall be issued to an applicant who meets the following requirements:

(a) He shall hold a valid airline transport or commercial pilot certificate or if he holds a private pilot certificate he shall meet the aeronautical knowledge, experience and skill requirements for the issuance of a commercial pilot certificate.

(b) He shall demonstrate in each category of aircraft in which he desires to give flight instruction his ability to teach the performance of such flight maneuvers and procedures as are necessary and appropriate for the safe piloting of that category of aircraft, and

(c) He shall show that he is familiar with effective flight instruction methods and procedures as set forth in the FAA Flight Instruction Manual or

(d) He shall demonstrate his ability to give instrument flight instruction if he desires to be rated as an instrument flight instructor.

§ 20 130-1 Limited Flight Instructor Certificates (FAA policies which apply to § 20 130)

(a) *Certificate and ratings.* The Limited Flight Instructor Certificate, will bear the same number as the holder's pilot certificate, and one or more of the following flight instructor ratings as appropriate:

- (1) Airplanes
- (2) Rotorcraft
- (3) Gliders
- (4) Instrument

(b) *Written examination.* (1) An applicant for a Limited Flight Instructor Certificate with a category rating will be given a written examination covering (i) The 'Fundamentals of Flight Instruction' and (ii) the 'Performance

and Analysis of Flight Training Maneuvers appropriate to the instructor rating sought

(2) A Limited Flight Instructor who applies for an additional instructor rating will be given the section of the written examination on the 'Performance and Analysis of Flight Training Maneuvers' appropriate to the additional rating sought

(c) *Practical test* An applicant for a Limited Pilot Certificate will be given an oral examination and flight test to determine his proficiency in giving accurate effective flight instruction. The applicant will be required to perform flight training maneuvers accurately, to detect, correct, and explain simulated student errors committed by the examiner. Flight instructor practical tests are given by inspectors only

(d) *Instructor practical test items* The flight instructor practical test will include the following items

- (1) *Oral examination all ratings*
 - (i) Application of effective flight instruction methods
 - (ii) Knowledge of safe flying practices and principles
 - (iii) Correctness and clarity of explanations
 - (iv) Recognition of student errors (in flight and in postflight discussion)
 - (v) Cross-country flight planning
- (2) *Flight test—airplanes*
 - (i) Preflight check and oral equipment examination
 - (ii) Preflight operations
 - (iii) Taxiing or sailing and docking
 - (iv) Straight flight and turns in climbs glides and level flight
 - (v) Normal takeoffs and accuracy landings
 - (vi) Crosswind takeoffs and landings
 - (vii) Short field takeoff and power approach with landing
 - (viii) Soft field takeoff and landing
 - (ix) Slips to landings
 - (x) Wheel landings in tailwheel type airplanes or full stall landings in tricycle types
 - (xi) Stalls from all normally anticipated flight attitudes with and without power
 - (xii) Maneuvering with minimum controllable airspeed
 - (xiii) Spins right and left
 - (xiv) 720° power turns
 - (xv) Chandelles
 - (xvi) Lazy eights shallow and steep
 - (xvii) Pylon eights shallow and steep
 - (xviii) Airport traffic patterns—rectangular courses and S-turns
 - (xix) Use of radio for voice communication—traffic control procedures
 - (xx) Emergency operation of airplane equipment forced landings

(3) *Flight test—rotorcraft*¹³

- (i) Preflight check and oral equipment examination
 - (ii) Preflight operations
 - (iii) Taxiing (if rotorcraft used is appropriately equipped)
 - (iv) Normal takeoffs and landings
 - (v) Crosswind takeoffs and landings
 - (vi) High altitude takeoffs and roll-on landings
 - (vii) Climbs and descents
 - (viii) Hovering—upwind crosswind and downwind
 - (ix) Hovering 360° turns
 - (x) Pattern flying with constant and with changing headings
 - (xi) S-turns
 - (xii) Rapid decelerations
 - (xiii) Autorotative landings
 - (xiv) Emergency operation of rotorcraft equipment

(4) *Flight test—gliders*

- (i) Preflight check and oral equipment examination
 - (ii) Preflight operations
 - (iii) Auto pulley or winch tow
 - (iv) Airplane tow—above below and to one side of slipstream
 - (v) 360° approaches right and left landing within 100 feet beyond a line
 - (vi) 3-turn spirals right and left at banks of at least 45°
 - (vii) Stalls and slow flight
 - (viii) Spins right and left
 - (5) *Flight test—instrument*
 - (i) Instrument flight planning
 - (ii) Preparing and filing an instrument flight plan
 - (iii) Aircraft performance range and fuel requirements
 - (iv) Required instrumentation and equipment and their proper use
 - (v) Straight and level flight¹⁴
 - (vi) Turns climbs and descents¹⁴
 - (vii) Stalls and maneuvering at approach speeds
 - (viii) Steep turns
 - (ix) Recovery from unusual attitudes¹⁴
 - (x) Engine-out procedures if test is given in multiengine airplane
 - (xi) Radio navigation including orientation using LF OMNI range or ADF
 - (xii) Use of radio for voice communication
 - (xiii) Standard instrument approach to authorized IFR weather minimums (not more than 500 feet and 1 mile) including holding procedures
 - (xiv) Missed approach procedures
 - (xv) Emergencies such as radio or instrument malfunctions
 - (xvi) Compliance with airways traffic control instructions and procedures
- [Supp 8 22 F R 5540 July 13 1957]

¹³ Autogiro applicants will fly the test prescribed for airplanes so far as is possible in the aircraft used

¹⁴ Maneuvers will be required with the use of the needle ball, and airspeed only

§ 20 130-2 Recommendation of Flight Instructor (FAA policies which apply to § 20 130)

The written recommendation of a Flight Instructor (not Limited Flight Instructor) with an appropriate aircraft category or instrument instructor rating will be accepted for the Limited Flight Instructor flight test

[Supp 8 22 F R 5540 July 13 1957]

§ 20 131 Renewal and reissuance

A limited flight instructor certificate shall expire 24 calendar months after date of issuance but may be renewed or reissued upon presentation to the Administrator of a satisfactory flight instruction record or upon a practical demonstration of continued competence

[21 F R 6638 Sept 5 1956]

§ 20 131-1 Satisfactory flight instruction record (FAA policies which apply to § 20 131)

The inspector will determine the acceptability of a Limited Flight Instructor's flight instruction record on the basis of his continued maintenance of recent instruction experience requirements the successful performance of applicants recommended for flight tests and the accident record achieved by the instructor and his students

[Supp 8 22 F R 5540 July 13 1957]

§ 20 135 Flight instructor certificates

A flight instructor certificate with appropriate ratings shall be issued to an applicant who meets the following requirements

(a) He hold a limited flight instructor certificate

(b) He has trained at least 5 successful candidates for pilot certificates or instrument ratings, and

(c) He has demonstrated his competence in giving flight instruction as evidenced by the ability of his students to maintain a satisfactory level of flight safety while under his supervision and to pass the certification and rating tests for which he has prepared them

(Secs 313(a) 601 602 72 Stat 752 775 776 49 U S C 1354 1421 1422) [21 F R 6638 Sept 5 1956 as amended by Amdt 20-14 25 F R 9287 Sept 29 1960]

§ 20 135-1 Candidates trained by a Limited Flight Instructor (FAA policies which apply to § 20 135(b))

To qualify as one of the required five candidates trained by an applicant for a

Flight Instructor certificate a student must have received all of his required dual flight test preparation¹⁵ and a written recommendation for the flight test from the Limited Flight Instructor making application.

[Supp 8 22 F R 5541 July 13 1957]

§ 20 135-2 Additional Flight Instructor category ratings (FAA policies which apply to § 20 135)

The holder of a Flight Instructor certificate may qualify for and obtain additional flight instructor category ratings by passing the written examination on the 'Performance and Analysis of Flight Training Maneuvers' and practical test appropriate to the rating sought

[Supp 8 22 F R 5541 July 13 1957]

§ 20 136 Flight instruction records

A flight instructor or limited flight instructor shall comply with the following

(a) He shall sign the student pilot's record for each period of flight instruction

(b) He shall make a record containing the name of each student pilot whose certificate he has endorsed and to whom he has given flight instruction the type of endorsement, and the date of each endorsement or flight instruction period such record to be retained so long as he exercises the privileges of his flight instructor's certificate or 3 years, whichever is the shorter period of time

[21 F R 6638 Sept 5 1956 as amended by Amdt 20-3 22 F R 2658 Apr 17 1957]

§ 20 136-1 Flight instruction records (FAA policies which apply to § 20 136(b))

The required flight instruction records may be kept separately or in the instructor's own pilot logbook. In addition to the required records prescribed in § 20 136 a record should be kept by the flight instructor of the name of each student for whom the instructor has signed a recommendation for an official flight test the type of test, and the date of his recommendation

[Supp 9 23 F R 2244 Apr 5 1958]

¹⁵ The dual minimum instruction required for various ratings is as follows

Private pilot airplane or rotorcraft—3 hours

Private pilot glider—1 hour

Commercial pilot airplane or rotorcraft—10 hours

Commercial pilot glider—2 hours

Instrument rating 10 hours

§ 20 137 Limited flight instructor limitations

A pilot certificate or instrument rating will be issued to a student trained by the holder of a limited flight instructor certificate only after such student has passed a flight test given by an FAA Inspector

[21 F R 6638 Sept 5 1956 as amended by Amdt 20-3 22 F R 2658 Apr 17 1957]

§ 20 137-1 Applicants trained by Limited Flight Instructors (FAA policies which apply to § 20 137)

An applicant for a pilot certificate or rating who has received his required dual flight test preparation and flight test recommendation from a Limited Flight Instructor must take his flight test from an inspector. An applicant who has obtained his dual flight test preparation and flight test recommendation from a Flight Instructor may take his flight test from an inspector or a designated pilot examiner

[Supp 8 22 F R 5541 July 13 1957]

§ 20 138 Validity and exchange of flight instructor ratings

The holder of a flight instructor rating may exercise the privileges of such rating until April 1, 1959. Prior to this date he may exchange such rating for a flight instructor certificate without further showing of competence. After April 1, 1959 the holder of a flight instructor rating shall not exercise the privileges of such rating but he may exchange it for a flight instructor certificate upon demonstrating continued competence to give flight instruction

[21 F R 6502 Aug 29 1956 as amended by Amdt 20-3 22 F R 2658 July 13 1957 Amdt 20-8 24 F R 49 Jan 3 1959]

§ 20 138-1 Exchange of Flight Instructor ratings for Flight Instructor certificates (FAA policies which apply to § 20 138)

(a) Prior to July 1, 1958 an applicant may exchange a flight instructor rating for a Flight Instructor certificate with aircraft category ratings appropriate to the aircraft in which he qualified for the flight instructor rating. Prior to July 1, 1958 an applicant who is the holder of a flight instructor rating and an instrument rating, both issued

prior to September 1 1957 will be issued a Flight Instructor Certificate with an Instrument Instructor Rating

(b) The holder of a flight instructor rating who fails to exchange his instructor rating for a Flight Instructor Certificate prior to July 1, 1958, may exchange it after that date by passing the appropriate practical test prescribed by § 20 130-1 (d)

[Supp 8 22 F R 5541 July 13 1957]

NOTE The record-keeping requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942

PART 21—AIRLINE TRANSPORT PILOT RATING

Sec

21 1 Provision for issuance

21 5 Definitions

MINIMUM REQUIREMENTS

21 9 Eligibility

21 10 Age

21 11 Character

21 12 Citizenship

21 13 Education

21 14 Physical condition

21 15 Aeronautical knowledge

21 15-1 Written examination (FAA policies which apply to § 21 15)

21 16 Aeronautical experience

21 16-1 Aeronautical experience (FAA rules which apply to § 21 16)

21 16-2 Evidence of flight experience (FAA policies which apply to § 21 16)

21 16-3 Copilot experience (FAA policies which apply to § 21 16 (a))

21 17 Aeronautical skill

21 17-1 Aeronautical skill (FAA policies which apply to § 21 17)

21 18 Radio skill

21 19 Airline transport pilot certificate (helicopter)

21 19a Aeronautical knowledge

21 19b Aeronautical experience

21 19c Aeronautical skill

21 19d Additional category ratings

AIRLINE TRANSPORT PILOT COMPETENCY CERTIFICATE

21 20 Aircraft rating

21 20-1 Aircraft rating (FAA policies which apply to § 21 20 (a))

21 21 Application

21 21-1 Application (FAA policies which apply to § 21 21)

21 21-2 Application to amend (FAA policies which apply to § 21 21 (a))

21 22 Issuance

21 22-1 Issuance (FAA policies which apply to § 21 22 (a))

21 23 Display

21 24 Duration